

A photograph of three women in a rural setting. The woman in the foreground is wearing a red and yellow patterned sari and is holding a large, dark, rounded metal pot. She has a red bindi on her forehead. Behind her, another woman in a blue and yellow patterned sari is also smiling. A third woman is partially visible on the left. They are all looking towards the camera. The background shows green trees and foliage.

PROGRAMME PROGRESS REPORT 2016-2020

WATER, SANITATION AND HYGIENE

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Programme Progress Report 2016-2020

Water, Sanitation and Hygiene

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ABOUT BRAC

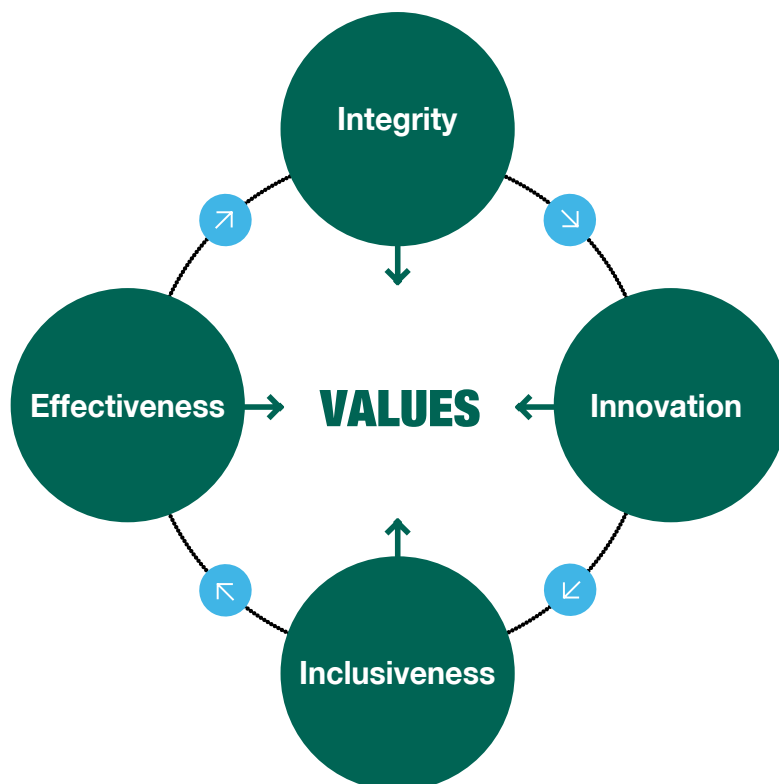
The journey began in 1972 in the newly sovereign Bangladesh, and over the course of our evolution, we have been playing the role of recognising and tackling the many different realities of poverty. We have, therefore, developed support services in the areas of human rights and social empowerment, education and health, economic empowerment and enterprise development, livelihood training, environmental sustainability and disaster preparedness. Our work now reaches an estimated 138 million people, across 11 countries in Asia, Africa, and the Caribbean.

VISION

A world free from all forms of exploitation and discrimination where everyone has the opportunity to realise their potential.

MISSION

Our mission is to empower people and communities in the situation of poverty, illiteracy, disease and social injustice. Our interventions aim to achieve large scale, positive changes through economic and social programmes that enable women and men to realise their potential.



ACKNOWLEDGEMENTS

Ever since the inception of the programme numerous individuals have contributed to the success of the BRAC Water, Sanitation and Hygiene Programme. First and foremost, we extend our gratitude to the Founder & Former Chairperson Sir Fazle Hasan Abed, Executive Director Asif Saleh, Former Vice Chairperson and ED (interim) Dr. AMR Chowdhury, former Executive Director Muhammad Musa for their overall policy direction and constant support. We would like to acknowledge the leadership of Dr. Md. Akramul Islam, Director, Communicable Diseases & Water, Sanitation and Hygiene Programme, BRAC, Milan Kanti Barua, Former Adviser and Dr. Mohammad Moktadir Kabir, former Programme Head, and Zillur Rahman, Programme Head-WASH for contributing in terms of policy guidance, strategy development, design and implementation. And of course, the relentless contribution of all BRAC WASH staff, current and former, in both the field and the head office cannot go unmentioned without whom the programme would not have been able to advance to its current stage today. We express our thanks to the BRAC Executive Management Committee (EMC) Members for their critical review of strategies and implementations and valuable feedback for addressing the critical gaps.

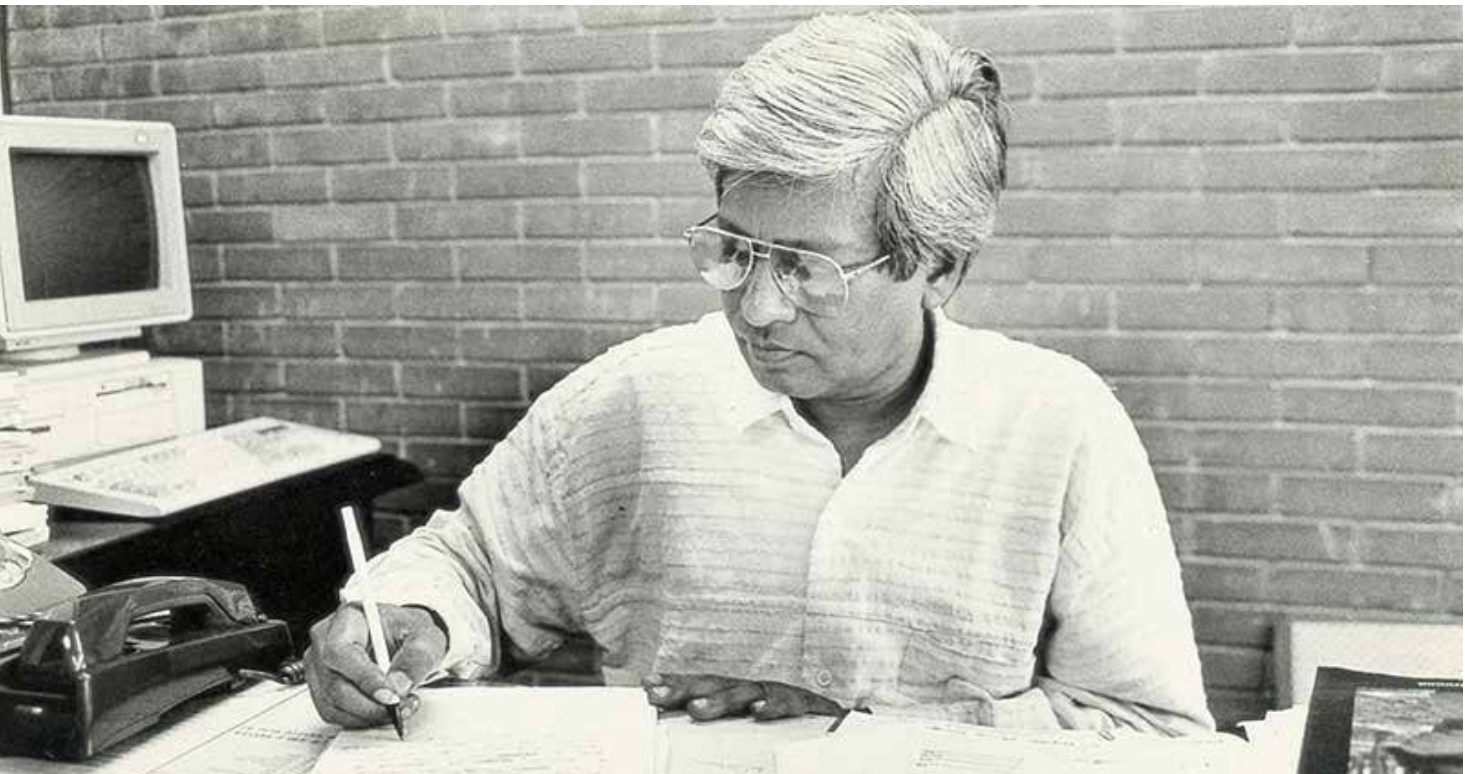
We would like to thank the Government of Bangladesh for letting us work alongside them, especially the Ministry of Local Government, Rural Development & Cooperatives and its constituent, the Department of Public Health Engineering, and also the Directorate of Secondary and Higher Education (DSHE). None of this would have been possible without the financial assistance of our donors: Directorate-General for International Cooperation (DGIS), Government of the Netherlands/Embassy of the Kingdom of the Netherlands (EKN), Bill & Melinda Gates Foundation (BMGF), Foreign Commonwealth and Development Office (FCDO), Australia's Department of Foreign Affairs and Trade (DFAT), Charity: Water, Unilever, and P4G. We would also like to acknowledge the support of our other development partners who have been involved with us at various points including the World Bank, UNICEF, IRC Netherlands. ITN-BUET, World Toilet Organization and American Standard. We also thank the other programmes within BRAC for their support in implementation, including the Microfinance Programme, Ultra Poor Graduation Programme, Health, Nutrition, and Population Programme and BRAC Education Programme; We would like to thank BRAC USA, BRAC UK for their support in fundraising.

Last but not the least, we would like to thank other programmes and departments of BRAC for their support, contribution, and guidance during implementation.

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LEGACY OF SIR FAZLE HASAN ABED



From its earliest days, BRAC highlighted clean water and hygienic sanitation as essential elements in the journey out of poverty. Since its inception WASH has always been an important component of any development initiative of BRAC. In the 1980s, BRAC went door to door teaching mothers to make oral rehydration solutions to reduce infant and child deaths, while scaling up WASH activities to further contribute to reducing infant and child deaths.

During the 1990s, safe water and hygienic latrines were identified by the Government of Bangladesh and BRAC as one of the critical health areas. Become effective, efficient, then scale up, that is the approach adopted in all BRAC's programmes especially for Water, Sanitation, and Hygiene Programme which caused its widespread reach and the colossal scale spanning across the nation under the visionary leadership of Sir Fazle Hasan Abed for which we would eternally express our gratitude.

FOREWARD



Asif Saleh
Executive Director
BRAC

Founded in 1972, the organisation specialises in curating and implementing innovations to reach and impact the lives of millions, with the aim to challenge inequity and empower people through uplifting situations of poverty.

BRAC has always been a changemaker, creating opportunities for people living in vulnerable conditions to realise their potential.

Under the leadership of the Government and with the support from development partners, BRAC has been working for the vulnerable, living in poverty, and marginalized to achieve the targets. However, a number of obstacles are still to be overcome which includes effects of climate change, natural disasters, water scarcity, inadequate financing, rapid urbanization, lack of appropriate, sustainable and affordable technologies in hard-to-reach climate vulnerable areas, etc.

The donors and partners who helped to launch and support the BRAC WASH programme are to be congratulated on their ambition and willingness to build partnerships. I would also like to thank the Government of Bangladesh for its willingness to let BRAC work alongside them. BRAC is looking forward to working together with all the stakeholders in the coming years to overcome these barriers through sharing experiences and learning from others.

LETTER FROM THE DIRECTOR



Dr. Md. Akramul Islam
Director

Communicable
Diseases & Water,
Sanitation and Hygiene
(WASH) Programme
BRAC

In 2020, the WASH programme campaigned for promoting protecting behaviours against COVID-19, including mask use and hand washing in the WASH working areas.

The BRAC Water, Sanitation and Hygiene (WASH) programme has made a critical contribution nationwide over the years. The programme has reached out across 289 sub-districts about half the country. It has helped over 41.62 million people gain access to hygienic latrines, reached about 13.9 million people with hygiene education, and 2.3 million people gained access to safe drinking water. Targeted water and sanitation financing, entrepreneurs' development and financing, loans for the ones living in poverty grants and water subsidy for the people living in ultra-poverty, along with motivation for self-financing for the ones with sustainable incomes has ensured equal access for all wealth categories. Over the time of 2016-2020, the programme has also conducted more than 76,442 hygiene sessions reaching out to 2,269 schools to improve hygiene behaviours focusing greatly on gender and disability.

According to WHO/UNICEF joint monitoring programme (JMP) report 2021, nationally, 98% of the population have access to basic water services while 59% have access to safely-managed water supply services. In the case of sanitation, 54% of the population have access to basic sanitation services whereas 39% of the population have access to safely-managed sanitation services. Only 58% of the population have access to basic hygiene services. It clearly shows Bangladesh still needs to reinforce and accelerate necessary actions to achieve sustainable development goals for water, sanitation and hygiene by 2030.

BRAC expresses its gratitude to every individual who has been a part of this programme and contributed with their expertise and to the best of their abilities. This report will showcase our collective effort in the WASH sector so that a framework that has been proven to be effective can be replicated in a wider arena.



1 EXECUTIVE SUMMARY

BRAC's WASH programme began its most recent phase of operations in 2016, after achieving tremendous success in transforming the water and sanitation interventions through a community-driven approach in rural Bangladesh, to achieve the Millenium Development Goals (MDGs). Based on the 40 years of experience in increasing access to rural sanitation services, the success of WASH interventions acted as one of the critical factors for the programme to continue and enhance its support dealing with the emerging challenges in difficult hydrogeological settings. As the Sustainable Development Goals (SDGs) called for more

improved services that focused on safe access and management, as well as equitable and universal coverage, the programme adopted a multidimensional approach to improving the quality of WASH services. From 2016-2020, the programme secured access to safe drinking water for 332,441 participants and ensured safely-managed sanitation services for 775,875 participants, respectively.

The programme adopted several projects over the last five years from inclusive financial mechanisms to addressing newer challenges. BRAC WASH began its strategic interventions to closely align with and contribute to the

attainment of National Priority Indicators (NPIs) of SDGs 6.1 and 6.2, emphasising the geographical focus on climate-vulnerable, hard-to-reach and underserved urban areas. The strategic approach stressed on providing safely-managed water and sanitation services to communities by enabling access to financial services. It also included developing WASH markets by establishing water and sanitation entrepreneurs and promoting climate-resilient WASH solutions in 400 unions under 13 hard-to-reach districts, and 38 municipal towns. Moreover, the programme introduced water quality testing services at affordable prices to raise community awareness and ensure the quality of drinking water at each installed facility.

Equitable and inclusive delivery of services continues to be one of the principal priorities, ensuring households in ultra-poverty also receive WASH facilities. As a result, 142,147 households living in extreme poverty were supported with grants to co-finance the construction of their water and sanitation facilities. In 2016, WASH introduced solid waste management services in underserved urban areas, to increase the capacity of local governments to secure environmental sanitation. BRAC WASH also piloted a project on a faecal sludge treatment plant in partnership with the Jamalpur municipality, to develop a sustainable and scalable business model of managing faecal sludge and solid waste.

WASH in school interventions in secondary schools continued to support safe water supply, hand washing facilities and hygienic sanitation along with menstrual hygiene management facilities in over 6,000 schools. Besides, over the last two years, the programme began to incorporate disability- friendly facilities into its school interventions. WASH has also been integrated with other BRAC programmes to be mainstreamed as a component to continue service delivery in its intervention areas. The programme has also been contributing to humanitarian assistance for the Rohingya refugees and host communities in Cox's Bazar from the earliest stages of the influx, and has



installed over 24,000 latrines, 1,600 tube wells and 39 piped water networks for nearly 366,000 Rohingya populations.

In hard-to-reach rural and urban areas, the programme offered WASH loans through which 9,396 water options and 18,920 hygienic latrines were installed. 273 water entrepreneurs were also supported to establish reverse osmosis-based water treatment plants and provided safe drinking water to 178,346 people in the communities. 187 water vendors were developed to support water services directly. In coastal areas, households were strongly motivated to construct climate-resilient latrines (elevated and durable) which would withstand the effects of climate change, despite the much higher capital investments as it yielded better returns on investment. Additionally, 133,972 existing household latrines were upgraded or repaired through loans and grant support. Households in climate-vulnerable areas were mobilised to install appropriate and alternative water technologies such as rainwater harvesting systems (RWHSs), pond sand filter (PSFs), tube wells with raised platforms, piped water supply systems, iron, arsenic, and salinity removal plants.

From 2016-2020, a total of 1,251 schools received WASH services, of which 495 received interventions in the past and required renovation or new latrine facilities. Apart from that, 756 secondary schools from water-scarce areas received WASH interventions with a primary focus on safe drinking water technologies. These schools received separate handwashing stations and drinking water points for male and female students. Schools were also assessed for the status of latrines as well as the latrine to student ratio. Based on that, 178 and 92 latrine chambers were constructed for female and male students, respectively. To promote hygiene awareness, over 76,442 hygiene sessions were conducted by both BRAC WASH staff and the school authorities. In addition, 262 schools observed soap drive and napkin drive days to ensure the annual supply of the products as part of WASH awareness campaigns.

Moving forward, the programme will focus more on hard-to-reach (coastal, wetlands, riverine islands, offshore island, hilly), climate-vulnerable areas where poverty, health, nutrition is a major concern. Promotion of gender and disability-inclusive WASH facilities, and financial assistance to the households living in poverty and extreme poverty through loan and grant support will be prioritised in underserved areas. The programme further planned towards institutionalisation of WASH services at Local Government Institutions (LGIs). The representatives of LGIs (Union/Upazila Parishad, Pourashava) will be involved in BRAC's collaborative meetings for policy advocacy and resource mobilisation from the annual development plan (ADP) to reach out to the extreme. To address the COVID-19 pandemic and create the capacity to deal with emerging health challenges, the WASH programme will continue to promote comprehensive hygiene awareness (e.g: handwashing, physical distance and face mask usage) and install handwashing facilities at households, schools, healthcare facilities, public places, etc. Last but not the least, the programme recognises the need to develop functional WASH markets to ensure access to water and sanitation services for the people living in geographically difficult locations, and hence will continue to promote, develop, and capacitate WASH entrepreneurs at the local level.





2 INTRODUCTION

Safe and sustainable WASH forms a prerequisite for an environment that fosters inclusive growth and human development. It is evident that households having access to improved drinking water sources (tube well, pipe water) and hygienic latrine facilities show a lower risk of under-five children mortality¹. The study findings depicted that improved toilet facilities provide better hygiene, causing less disease occurrence. Besides, inadequately managed WASH services are found to be associated with children's

under-nutrition as a result of diarrhoea and intestinal infections².

BRAC's WASH programme has extensive experience in the promotion of safe water, improved sanitation and hygiene practices in Bangladesh. The outstanding contribution reduced the national target population without access to safe water and hygienic latrines by half during the MDG period. The programme was launched in 2006, when the coverage of

¹ Chowdhury AH (2013). Determinants of under-five mortality in Bangladesh. Journal of Statistics, Vol 3, pp 213-219. DOI: 10.4236/ojs.2013.33024

² Gizaw Z and Worku A (2019). Effects of single and combined water, sanitation and hygiene (WASH) interventions on nutritional status of children: a systematic review and meta-analysis. Italian Journal of Pediatrics. Vol 45, number 77. <https://doi.org/10.1186/s13052-019-0666-2>

safe water sources in the country dropped from 97% in the 1990s to 74% in 2006, due to the detection of widespread arsenic contamination of groundwater. Moreover, the national sanitation coverage was 51.5% for hygienic sanitation and 54.1% for improved sanitation³. By the end of the MDG period, the population with access to safe water and hygienic latrines had risen to 89% and 70% respectively. By the end of the MDG period, the proportion of population using basic basic water services and improved sanitation had risen to 98% & 62%.

From 2006 to 2015, the BRAC WASH programme worked in 250 sub-districts across the country and contributed significantly to transform the water and sanitation scenario in rural Bangladesh, by adopting a participatory mechanism with the communities and working in partnership with the local government and other stakeholders. The programme brought social transformation in areas where it intervened, not only in terms of access to sanitation for vulnerable families in rural areas, but also in their use by all members of the family.

By the end of 2015, the programme had helped over 41.62 million people to gain access to a sanitary latrine, reached about 13.9 million people with hygiene education, and 2.3 million people gained access to safe drinking water.

Based on the experience since 2006, increasing access to rural sanitation services has been a critical indicator of WASH interventions, which allowed the programme to continue and enhance its support to deal with the emerging challenges in difficult hydrogeological settings, such as haor (wetland region), coastal saline, char (small riverine islands), etc.

Since 2016, the programme has been closely aligned and worked towards contributing to Sustainable Development Goal 6 (SDG 6),



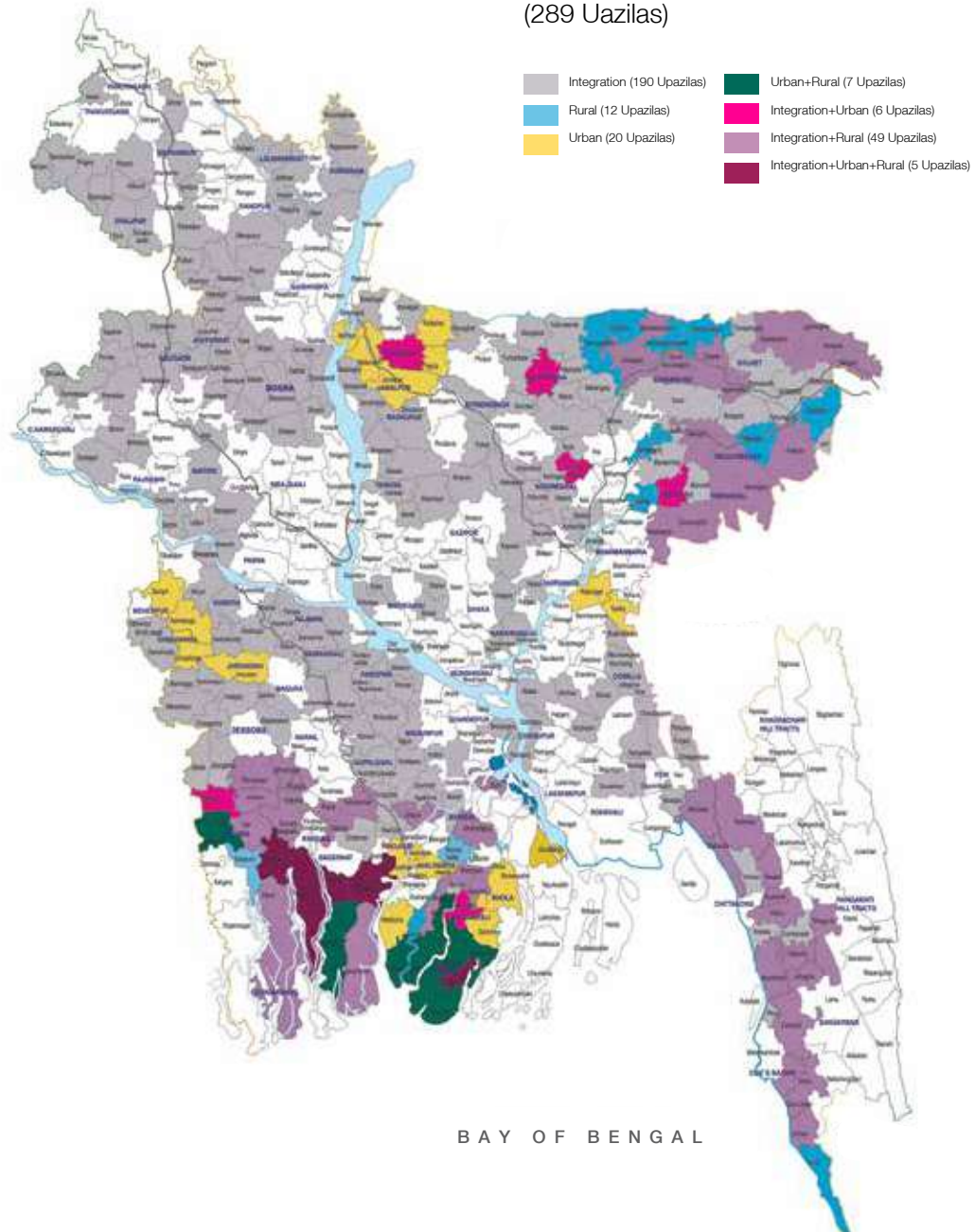
while focusing on climate-affected, hard-to-reach, and underserved urban areas. Increased emphasis has been placed on providing safely-managed WASH facilities through a social enterprise model, developing water entrepreneurs, and promoting climate-resilient technologies in hard-to-reach (400 unions under 13 districts and urban areas, 38 municipal small towns). Urban areas were also supported with WASH interventions through solid waste management services and development of micro-entrepreneurs to address emerging WASH issues, including faecal sludge management in Pourashava (Municipality) through partnership with LGIs.

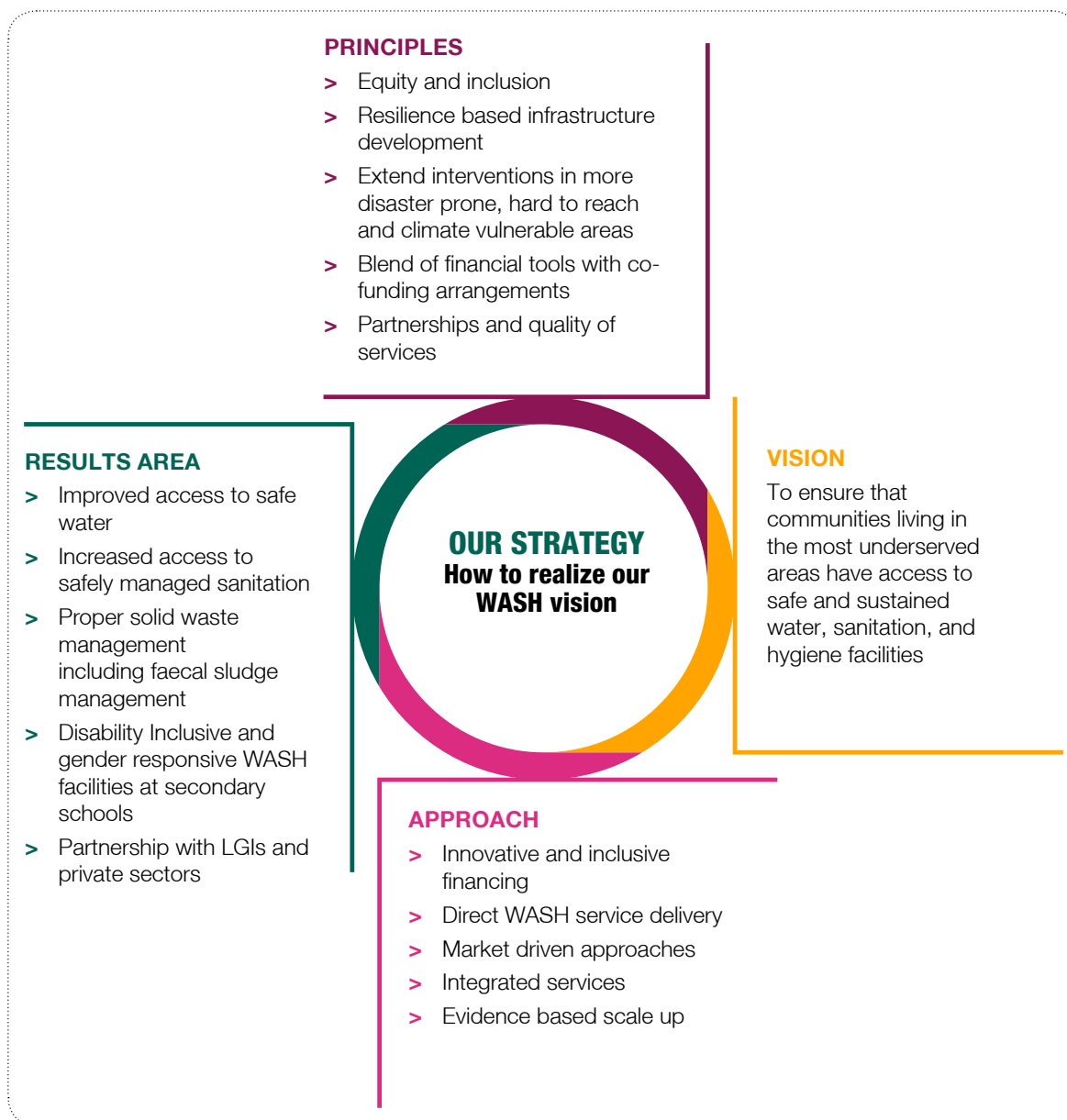
Secondary schools were supported with safe water supply, handwashing stations, proper sanitation, and menstrual hygiene management facilities. WASH as a component has been integrated into other BRAC programmes such as the microfinance programme, the health, nutrition and population programme (HNPP), the education programme, and the ultra-poor Graduation (UPG) programme to continue and expand operations in 250 sub-districts from the previous phase and address slippage through the provision of grants. The programme has also been contributing to sustainable WASH facilities in the Rohingya camps since the influx in 2017.

³ Achievements of BRAC Water, Sanitation and Hygiene Programme Towards Millennium Development Goals and Beyond retrieved from https://www.bracuk.net/wp-content/uploads/2015/11/Monograph_60.pdf

BRAC WASH Programme Coverage Map

(289 Upazilas)









3 PROGRAMME DESIGN

The reporting period is the time when the country was entering into the SDG from the MDG era. Hence, the programme was designed considering the changing socioeconomic context of the population, in line with the Sustainable Development Goal (SDG) and Bangladesh's development agenda.

With the decrease of international aid, it was more important that the organisation goes on a faster trajectory in its path to sustainability. Hence, the programme

prioritised on building a social enterprise model, providing loan support for the segment who are in the higher income bracket and grant services for those who need it the most. Based on these speculations, the programme is designed around addressing the effects of climate change on WASH, promoting affordable technologies, and pro-poor urban development. At the same time, it focused on the continued promotion of disability inclusion and gender equality within and outside the organisation.



4 SERVING THE COMMUNITY WITH SAFE DRINKING WATER

Bangladesh has made remarkable headway in ensuring access to improved water sources for drinking water, sanitation and hygiene for the year 2000-2020. Five years into the SDGs, the JMP report 2021 stated that although 98% of the population have access to basic water services, only 59% have access to safely-managed water supply service⁴. Contamination of groundwater with some arsenic, e coli salinity, iron, manganese is prevalent across many parts of the country. The factors associated with accessing potable water is subjected to local variability in Bangladesh. While most of the rural population relies on tube wells,

hard-to-reach (HTR) and peri-urban areas are often deprived of context-specific solutions that ensure continuously-accessible safe water to drink. Since 2016, the BRAC WASH programme has been operating in 73 Upazilas (sub-districts) in hard-to-reach areas, and 38 pourashavas or municipal towns to provide appropriate water technologies depending on the local needs and hydrogeological conditions. Hard-to-reach areas are the pockets of areas that have received little development attention in the past as they are not easily accessible due to fragmented infrastructure development, and poor road communication networks in particular.

⁴ <https://washdata.org/sites/default/files/2021-07/jmp-2021-wash-households.pdf>

Much of the population in hard-to-reach areas of Bangladesh, especially the people living in extreme poverty and vulnerable conditions, continue to be deprived of the basic right to safe drinking water and safely-managed sanitation services, due to a lack of equitable WASH service delivery models. The service providers also fail to reach or find it difficult to provide services in these specific areas. The problem is intensified by limitations of resources, disproportionate investment by donors and government for hard-to-reach rural areas, lack of appropriate and affordable context-specific technologies, and operation & maintenance as well as institutional challenges and capacity gaps such as poor local governance. Hard-to-reach areas like chars (tiny riverine islands), haors (wetland region), exposed coastal areas, hills, floods and extreme-drought zones are characterised by their remote geographical locations which suffer from threats of climatic disasters such as floods, droughts, cyclones. Additionally, they also face the consequences of dynamic riverine environment, such as tidal surges and riverbank erosion. The government of Bangladesh has categorised the hard-to-reach areas as extremely, very and moderately hard-to-reach from multi-criteria analysis considering six indicators; availability of water (indicated by the level of groundwater table); improved drinking water coverage; hygienic sanitation coverage; climatic hotspots; poverty level; child mortality and their respective criteria and ranking.

In order to enhance the water, sanitation, and hygiene scenario, these areas need special attention in different aspects of development including technological options, social mobilisation, financial resources, and service delivery mechanisms because of the special geographical, hydrogeological, and social settings.

THE WASH APPROACH TO SAFE WATER

- **Inclusive financial services to increase safe water coverage:** To increase the coverage of safe water supply in a way that is more equitable, the programme adopted an inclusive financing mechanism. In 2016,

BRAC WASH began to provide WASH loans to households living in poverty and households with sustainable incomes to install or upgrade their facilities, thereby decreasing the financial stress of investing a large sum of money at once. Additionally, in programme intervention areas, communal and individual water points were installed as grants to households living in extreme poverty.

- **Promoting appropriate water technologies:** In Bangladesh, the availability and quality of water vary from one location to another due to the varying hydrogeological context of the country. The southern belt of the country is a coastal area where shallow tube wells are not a feasible option. In areas where BRAC WASH operates, it promotes context-specific and appropriate water technologies and motivates its clients to install them.
- **Ensuring community participation for installation and proper operation and maintenance:** The programme ensures community participation by consulting with them, especially the women, from site selection to installation of the facility to optimise its use. Moreover, building the capacity of the community groups is essential in order to ensure sustainable operation and maintenance of the WASH facilities.
- **Enhancing the capacity of the private sector for water service delivery:** The programme has been developing water entrepreneurs as a way to create the WASH markets and include the private sector in the delivery of safe drinking water services through the installation of advanced water treatment technology. In addition, loans were provided to them and capacity building of a social business model including business plan, market promotion, etc was also implemented.
- **Ensuring surveillance of water quality:** Poor water quality is pervasive throughout Bangladesh in some form or the other. While water from tube wells is at risk of being

contaminated with arsenic and salinity, poor operation and maintenance lead to e coli bacteria contamination of the water sources. Due to this reason, the programme has highly emphasised testing the water quality during installation of water facilities as well as periodically testing during its service period.

ACTIVITIES FOR THE SUPPLY OF SAFE WATER

■ Provision of loans and grants support:

The programme provided WASH loans for installing water points to households both living in poverty and with sustainable incomes with simple terms and conditions. Since 2016, over 8,010 WASH loans were provided to install or upgrade the water sources. The programme was integrated with the ultra-poor Graduation (UPG) programme to identify communities/households eligible for grants for the development of water facilities. During this period, the programme has provided free safe water to 4,076 households living

in extreme poverty, along with installation of 103 water points (tube well) in communities living in poverty.

- **Installation of context-specific water technology:** The programme installed appropriate context-specific water technologies in the intervention areas, such as deep and shallow tube wells, arsenic-iron removal plant,



Reverse osmosis technology-based water treatment plant

reverse osmosis-based water treatment plants (WTP RO), protected ring wells, piped water supply (PWS), rainwater harvesting system (RWHS), etc.

■ Training of caretakers of WASH facilities:

After the installation of the water point, the technical persons of BRAC WASH provided training to the household members. For communal water points, the programme formed a water management committee and trained them on proper operation and maintenance.

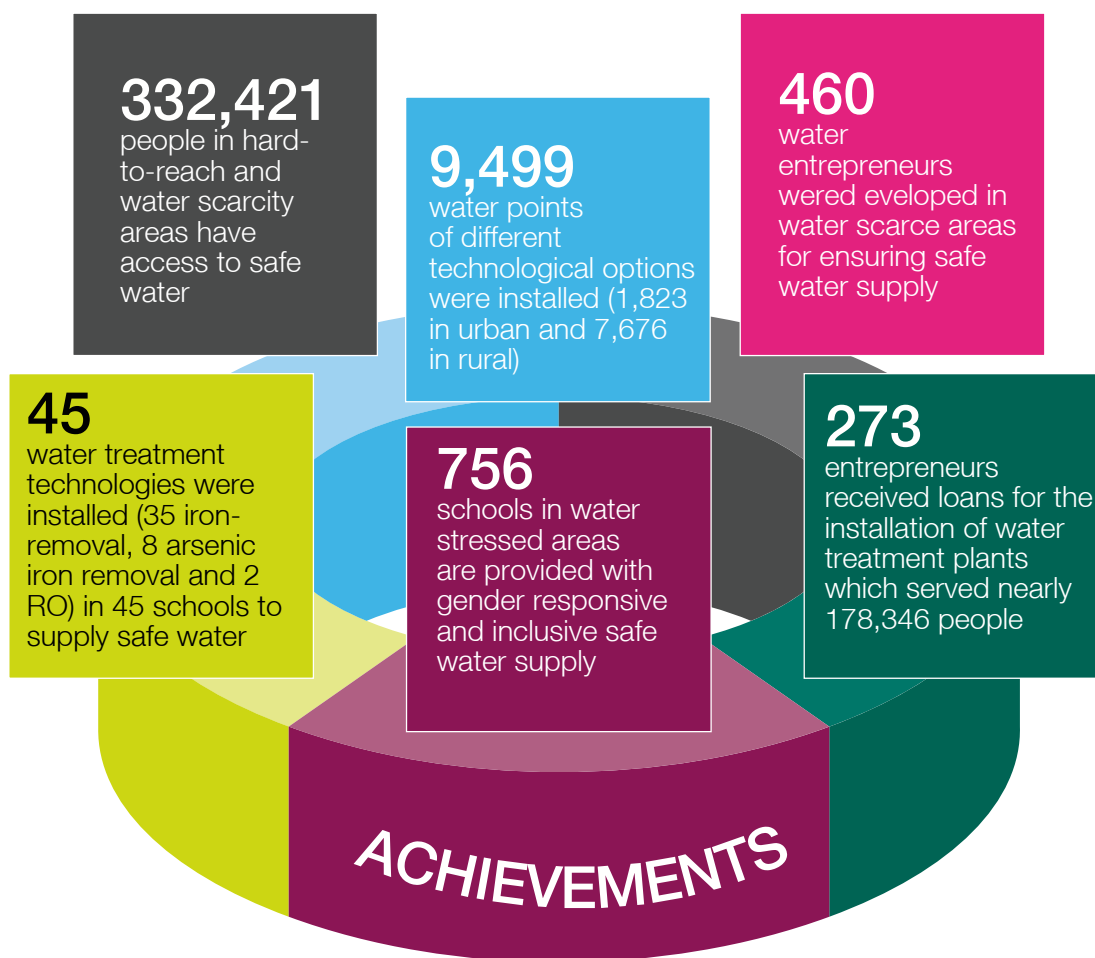
- **Water quality testing:** In 2017, the BRAC WASH programme introduced 20 water quality testing facilities in Bangladesh to test

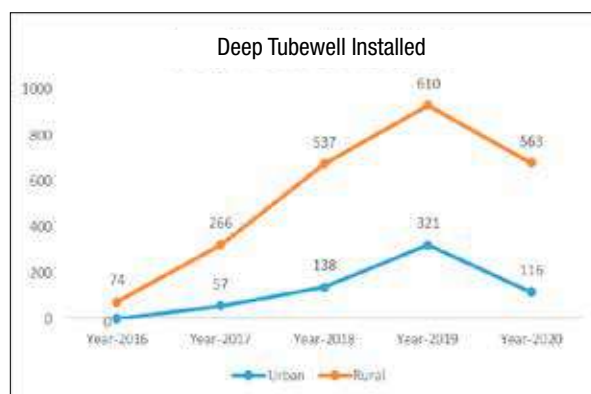
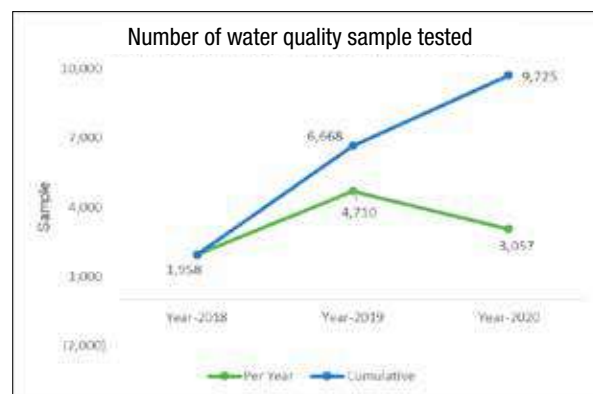
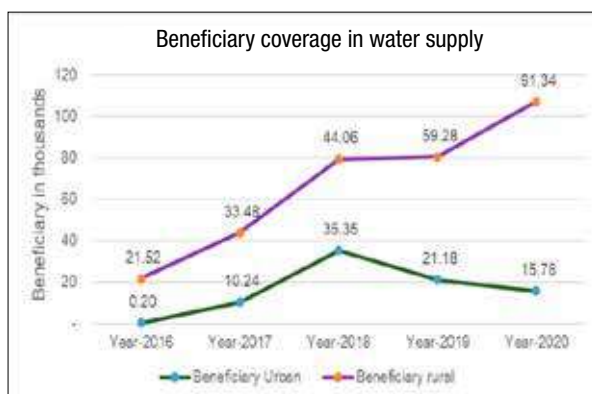
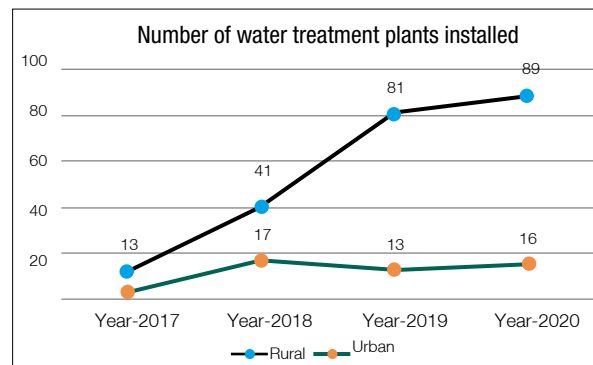
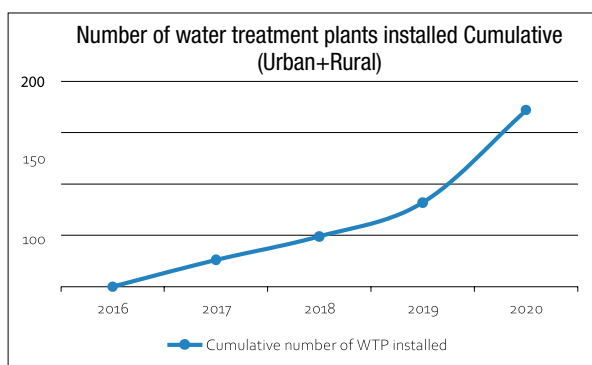


Pipe water supply network

water quality at affordable prices and cross-subsidised rates. Testing the water quality parameters is a prerequisite for the programme before commissioning a water source and is certified as a safe one. The parameters tested

are arsenic, iron, manganese, salinity, and pH. Additionally, the testing facility is installed in Cox's Bazar, predominantly to test the water quality in terms of faecal coliform count in the Rohingya camps.







5

SAFE SANITATION FOR ALL

Safe disposal of faecal matter is considered to be a major challenge towards safely-managed sanitation in both urban and rural areas of Bangladesh. Progress on household drinking water, sanitation and hygiene 2000-2020: five years into the SDGs, the JMP report 2021 stated that although 54% of the population have access to basic sanitation services, only 39% have access to safely-managed sanitation. This situation is even worse among the urban population (34%) than among rural (42%)⁵.

⁵ WHO-UNICEF 2017. Progress on household drinking water, sanitation and hygiene I 2000-2017 WHO-UNICEF 2013. Progress on sanitation and drinking water 2013 update. Available at: http://www.wssinfo.org/fileadmin/user_upload/resources/JMP_report2013.pdf.

The main challenges in achieving safely-managed sanitation in Bangladesh are: high communal latrine usage by the people living in urban slums; the gap between hygiene knowledge and practice; disparity in fund allocation; and absence of sewerage system in urban areas except for Dhaka⁶. The inclusion of people from all strata of society has been emphasised in sanitation campaigns to improve the situation. However, bringing the participants living in poverty and people living with sustainable incomes into 100% sanitation

⁶ WHO-UNICEF 2013. Progress on sanitation and drinking water 2013 update. Available at: http://www.wssinfo.org/fileadmin/user_upload/resources/JMP_report2013.pdf.

coverage remains a challenge. The programme has been working to increase the coverage of safely-managed sanitation in the areas where it operates, and support the government in its implementation.

The programme intervened in 289 Upazilas (sub-districts) from 2016-2020, mainly in hard-to-reach areas including urban areas⁷. The contextual problems in hard-to-reach and urban areas (eg, water scarcity, flooding, space shortage, etc) are the barriers towards sanitation intervention in these areas. Therefore, these areas are particularly emphasised for developing and promoting climate-resilient and safely-managed sanitation interventions in terms of technological options, social mobilisation, financial resources, and service delivery mechanisms. People living in these areas require affordable, sustainable, and user-friendly sanitation facilities. WASH support intensified in 400 unions under 73 sub-districts in 13 districts, mainly from the eastern and southern regions of Bangladesh from 2016 to 2020. In small towns covering 38 pourashabhas, mostly situated in Bangladesh's coastal areas, the sanitation-related interventions vary according to the people's need and contextual problems, and consist of community mobilisation, formation of village and urban WASH committees (VWCs, UWCs), development of rural sanitation centres (RSCs) by financially and technically supporting sanitation entrepreneurs, loans for new latrines, repair of old latrines and construction of group latrines in urban areas.

APPROACH TO SAFE SANITATION



Human waste collection vehicle from households

The programme provides sanitation services under four strategic domains which include driving demand, ensuring supply, financial support and strengthening the enabling environment.

- **Demand creation:** Community mobilisation for creating demand on safely-managed and improved sanitation services through awareness-raising activities by household visits, social gatherings and involving VWC and UWC and LGIs are conducted by the programme. The local stakeholders, households and other members of the community are sensitised on the common phenomena such as gender-sensitive, disability-inclusive, and climate-resilient sanitation facilities in climate-vulnerable, hard-to-reach and urban areas.

⁷ BRAC-WASH 2016. Water, sanitation and hygiene: Nine years of scale and innovation in Bangladesh, Programme report 2006-2015, 2016. Dhaka: BRAC. Available at: <https://www.brac.net/images/WASH/BRACWASHProgrammeFinalReport20062015.pdf>

- **Ensuring supply:** The programme supported entrepreneurs from within the community through financial and technical support to establish rural sanitation centres to sell quality sanitation materials. A strong focus was placed on sustainable technologies and awareness-raising on safely-managed WASH services by promoting and building twin-pit latrines supplemented with durable superstructure and raised platforms considering climate vulnerability in hard-to-reach areas.
- **Inclusive and effective financing mechanism:** An inclusive financial model was adopted hence access to sanitation was equitably distributed to the communities. The households living in poverty and with sustainable incomes were provided sanitation loans, while the ones living in extreme poverty received latrines as grants. WASH loans and grants were also provided by integrating with other programmes such as the microfinance, and the ultra-poor Graduation programme.
- **Enabling environment:** Strengthening the enabling environments enhances the engagement of local government by increasing advocacy and collaboration for smooth service delivery and resource mobilisation.

ACTIVITIES TO ENSURE safely-managed SANITATION

Financial support for sanitation: Financing in WASH is one of the three major actions along with integration and sustainability to achieve SDG 6 and boosting WASH financing can reduce inequity of safe WASH coverage⁸. The inclusive financing mechanism of the WASH programme addressed various socioeconomic groups by identifying, screening, and providing loans to the households living in poverty and grants to the households living in extreme poverty in hard-to-reach and urban areas. Apart from providing loans to households, the programme supports WASH micro-entrepreneurs. The programme followed the criteria for target population used by the microfinance programme in determining loan recipients and the ultra-poor Graduation programme for selecting participants eligible for grant support. BRAC Microfinance programme targets and meets the needs of some specific groups including women and small entrepreneurs.

Safely-managed and climate-resilient sanitation technologies:

The programme promoted safely-managed twin-pit latrines and elevated platforms along with durable superstructure resilient to disaster through community mobilisation and financial support. Although the cost of constructing an elevated latrine was high, the clients willingly paid the additional cost of construction after being motivated by the programme about the long term returns on investment.

Urban sanitation: The provision of sanitation services in an urban context is complex due to fast and haphazard growth; uncontrollable and unpredictable rural to urban migration, high population density in low-income areas, and lack of awareness. BRAC WASH implemented various activities to mitigate the challenges



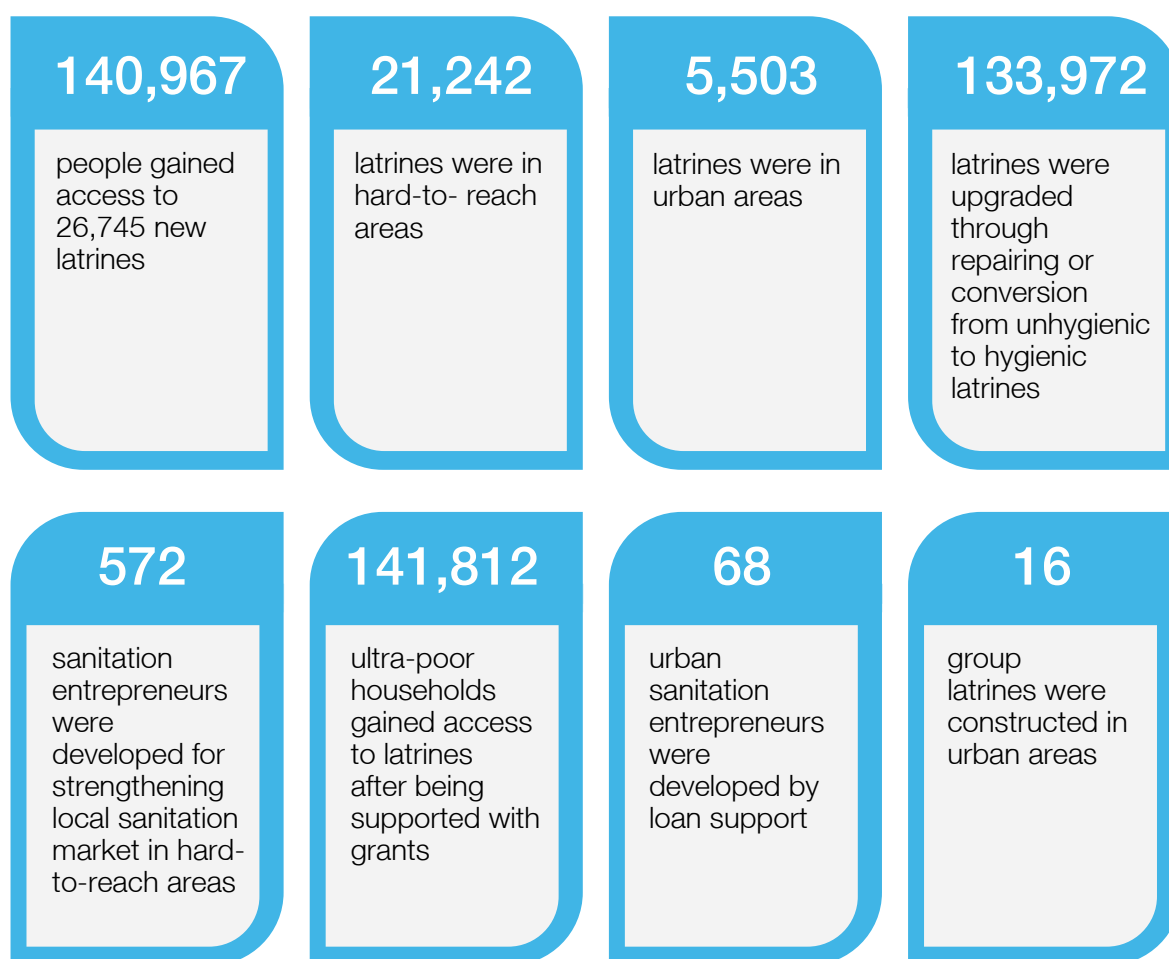
⁸ WaterAid 2018. How to reach everyone with safe water and sanitation by 2030. Available at: https://washmatters.wateraid.org/sites/g/files/jkxooof256/files/How%20to%20get%20water%20and%20sanitation%20to%20everyone%20by%202030_0.pdf

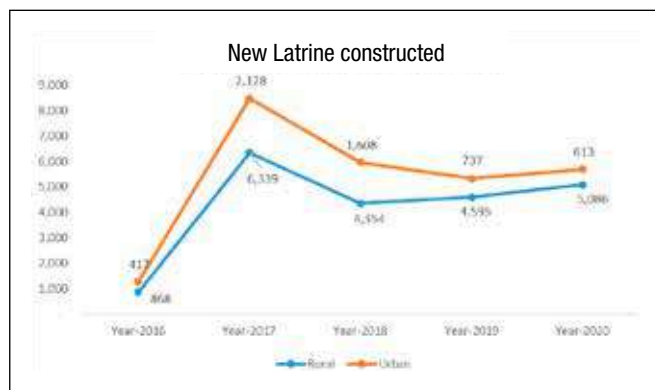
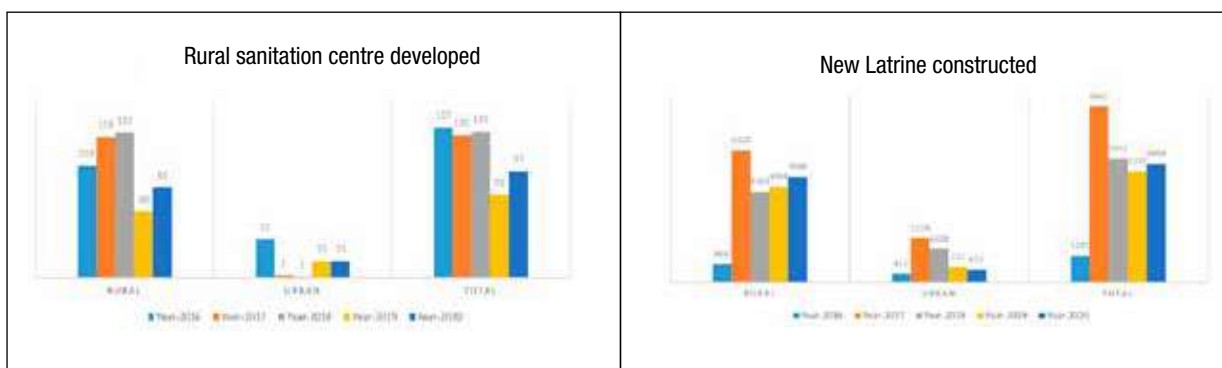
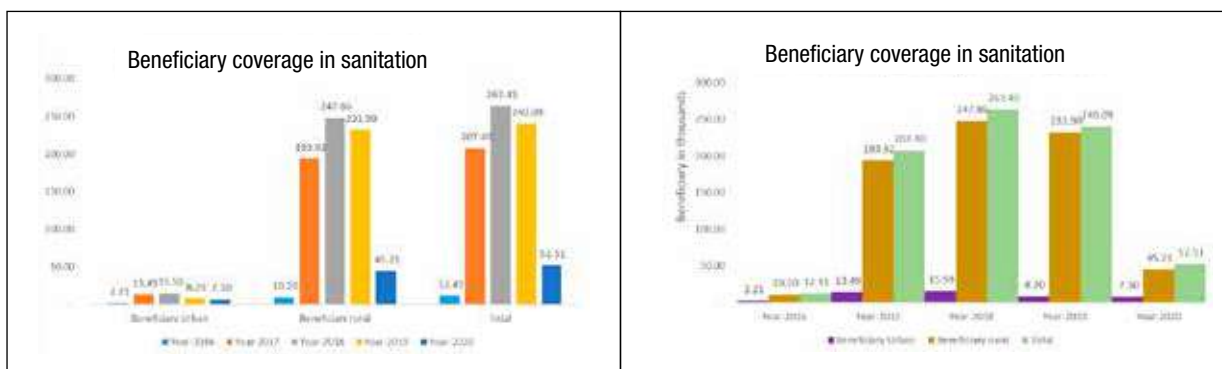
of the urban areas. Appropriate sanitation technologies were promoted based on the context such as twin-pit latrines and septic tanks with soak pits. The programme established solid waste entrepreneurs to provide waste management services. BRAC also ensured the functionality of the constructed WASH infrastructures by motivating the community for regular operation and maintenance (eg, repair). The common challenges towards safely-managed sanitation particularly in urban areas included space shortages to install twin-pit latrines. The programme addresses this issue of space shortage by installing a latrine with a septic tank along with a soak pit.

Creating enabling environment for sanitation by engaging community, LGIs and private sector:

Relationships with local government and private sector were built and regular communication was maintained for promoting integrated waste management (city-wide sanitation, faecal sludge and solid waste management as well as installation of gender-sensitive and disability-inclusive latrine.

ACHIEVEMENTS







6

DEVELOPMENT OF ENTREPRENEURS

The changing structure of Bangladesh's society from rural to urban, coupled with the demands of an industrialised nation has led to a discrepancy in the skills required from the youth for employment. BRAC's updated strategic priorities addressed new developmental challenges in Bangladesh through expansion of financial freedom of people living in poverty, by enhancing their

financial inclusion and stronger economic empowerment by addressing market gaps as well as creating employable skills and decent work. BRAC in its effort to look for market gaps has set up new social enterprises in providing crucial livelihood opportunities for the ones living in poverty. For e.g: WASH through its development of sustainable water and sanitation entrepreneurs.

Development of water entrepreneurs:

The programme developed water entrepreneurs in both rural and urban areas in water-scarce areas, by motivating potential members from the community, providing them with appropriate technical training, and offering WASH loans to install the reverse osmosis-based water treatment plant. The loan amount offered to these water entrepreneurs ranged from BDT 200,000-500,000. Depending on the capacity, each plant can produce 1,500-2,000 litres of water per day, which are sold to communities in 20-litre jars. Each 20-litre jar of water is sold at BDT 15-20 (USD 0.18- 0.24). On average, each water treatment plant provides water to 100-300 households depending on its capacity.



Development of sanitation entrepreneurs:

Delivery of quality services is ensured by developing well-trained entrepreneurs. The sanitation entrepreneurs are financially and technically supported to ensure the availability of high-quality raw materials in urban and rural WASH markets. BRAC WASH provides an orientation to all producers of latrine materials in its programme areas to boost supply and maintain the standard of quality products, and act as agents to promote context-specific sanitation technologies. The programme also prioritises the participation of women entrepreneurs.



7

WASTE MANAGEMENT IN URBAN AREAS

In Bangladesh, a large amount of solid waste is generated every day from city corporations and municipalities. However, existing infrastructure for waste management showed that waste collection efficiency in different urban areas varies from 37% to 77% with an average of 55%. Solid waste, if not disposed of appropriately, pollutes the environment rapidly by causing both land and water pollution.

In 2016, BRAC WASH began operating in 38 municipal towns located in the coastal areas, where environmental pollution was high due to unmanaged waste. The programme carried out a baseline survey in the intervention areas to analyse the initial status of the situation and

identified the gaps in order to assess demand for waste management through consultation with the communities, ward councillors, mayors, and other stakeholders. It was found that few municipalities lacked the capacity to manage the solid waste of the entire area under their jurisdiction. Many households generally threw their wastes in nearby drains and ponds while a considerable section disposed of their trash at the roadside. Lack of awareness, inadequate dustbins, improper maintenance of drainage system, and lack of drainage facilities were the main reasons for the inadequacy of the waste management system according to many municipal residents.



Initial screening of inorganic waste

Therefore, the objective of the waste management project was to enhance the capacity of local governments to manage their wastes by developing an efficient system. To ensure efficiency in activities, the programme carried out regular monitoring activities, collected feedback from the community, and coordinated with the local government to resolve problems in service delivery.

APPROACH

Enhancing the capacity of local government and developing a participatory mechanism: A baseline survey before intervention was conducted to identify wards that were lagging in managing household wastes and required strengthening their capacity. Then, with the support of the ward councillor and communities, BRAC WASH began to develop solid waste entrepreneurs by providing them with financial and technical support. A participatory mechanism was also developed for registering households that needed support at the ward commissioner's office for collecting and disposing of household wastes.

Developing a solid waste entrepreneurship model: To enhance the local government's capacity for waste collection, the programme involved the local government institutions, waste entrepreneurs, and the community to create an entrepreneurship model. The waste entrepreneurs in collaboration with the Ward Commissioner's office collected monthly tariffs for the service of door-to-door waste collection and disposal from registered households. BRAC WASH programme has extensive experience working in the field of solid waste management systems. BRAC presently has solid waste management activities in 38 municipalities. The solid wastes are collected from the household level and separated at sources. The waste collectors are involved as entrepreneurs. BRAC provides the seed money to buy the vans and equipment. The collectors collect the waste from the households and also receive fees for waste collection and pay back the loan in small instalments. This is a successful model where the entrepreneurs have become economically solvent and while composting and recycling chains are being established.

Piloting a municipal faecal sludge treatment plant that can be scalable: In 2017, BRAC WASH piloted a project on faecal sludge management in Jamalpur municipality. The objectives of the project was:

- To build the capacity of the municipal authorities to effectively manage faecal sludge after BRAC WASH creates a value chain model
- Assess the situation of faecal sludge and solid waste management in each ward and build awareness among the city dwellers on safely-managed sanitation
- Ensure the quality of the co-compost (organic fertiliser according to the Bangladesh standard) and create potential market demand through campaigns among the users (farmers, nurseries, etc)
- Understand the feasibility of establishing a value chain model for safe collection, transportation, treatment, and reuse of faecal sludge in the municipality

Mainstreaming the use of co-composting products: The programme has been producing organic fertiliser from co-composting waste at the faecal sludge treatment plants and marketing it at a limited capacity. This approach was adopted to reduce stigma on the use of co-composted fertilisers.

ACTIVITIES

Creating partnerships with local government:

The programme partnered with local government to develop the waste management capacity of the LGIs. Regular meetings were held with the mayors, ward commissioners, and respective authorities to raise awareness and discuss the objectives and responsibilities for the collection and management of household wastes.

Recruiting and training of solid waste entrepreneurs:

BRAC WASH conducted a baseline survey to collect household data at the ward level. The programme recruited solid waste collectors and provided technical and financial support. In the selection process, CBOs, local



2000 litres capacity vacuum truck for collecting faecal sludge

NGOs, and local communities were approached to identify potential candidates. Existing waste collectors were also connected to recruit and develop new entrepreneurs. One entrepreneur was developed for 200-250 households.

Follow up and monitor quality of services:

BRAC WASH conducted regular follow up with the community, monitored the waste management services, and provided ad-hoc support to ensure that communities received services smoothly. Regular follow up with supervisors of the municipality cleaning services, ward level Coordination Committee and local elites were conducted to collect information and maintain coordination. Feedback from beneficiaries was regularly collected.

Operating a faecal sludge treatment plant in Jamalpur: In 2017, BRAC WASH implemented a pilot project on operating a faecal sludge

management plant in Jamalpur municipality.

BRAC WASH partnered with the Jamalpur municipal authorities and renovated the pre-existing but non-functional treatment plant. The plant was extended to increase the capacity to treat waste, and a vacuum was custom built to access narrow alleys of the municipal areas. The project employed pit-emptiers and trained them on the operation and safety of mechanical pit emptying. Simultaneously, door-to-door solid waste entrepreneurs were developed to collect household wastes and transport them to the treatment plant.

The pit-emptier and waste collectors provided services to communities in exchange for a service fee and disposed of the human and household wastes in the faecal sludge treatment plant to be co-composted.



Mixing of solid waste with dry faecal waste



Solid waste collection van from households

The project came with its own set of challenges, but by intervening with the local government and municipality waste collectors, the project capacitated suppliers and created a network and awareness for inducing local demand for safe, mechanical waste collection.





8

WASH IN SCHOOLS

WASH IN SCHOOL FROM 2016-2020

BRAC WASH has been operating in schools since 2006, focusing primarily on building separate latrines for girl students with menstrual hygiene management facilities and hygiene education. The programme has begun working in schools under a comprehensive project titled 'WASH in Schools'.

With its comprehensive design, it has reached 6,011 secondary schools across the country with separate latrines, hygiene education, and safe drinking water. Over the course of the programme, BRAC WASH trained almost

53,500 teachers, 55,655 student brigade members and more than 6,011 school management committee members to ensure the sustainability of WASH services in schools.

The schools were selected from water scarcity areas and received needs-based appropriate water technologies (deep tube wells, iron removal plants, arsenic-iron removal plants, and reverse osmosis water treatment plants). All schools were provided with separate WASH zones for boys and girls, which have safe drinking water and handwashing stations with tap water networks of improved structure and aesthetics compared to the facilities provided in the past. The programme tailored its sanitation

interventions based on the needs of the schools, hence the number of latrines constructed were based on the school's student to latrine ratio. The programme observed an inadequacy of boy's latrine and so the schools were also provided with boy's latrine, which is an exception to the sanitation intervention from the past. Additionally, the sanitation interventions included disability-inclusive components (a ramp and handle), and all-female latrines were equipped with menstrual hygiene management facilities.

WASH ACTIVITIES IN SCHOOLS

School selection

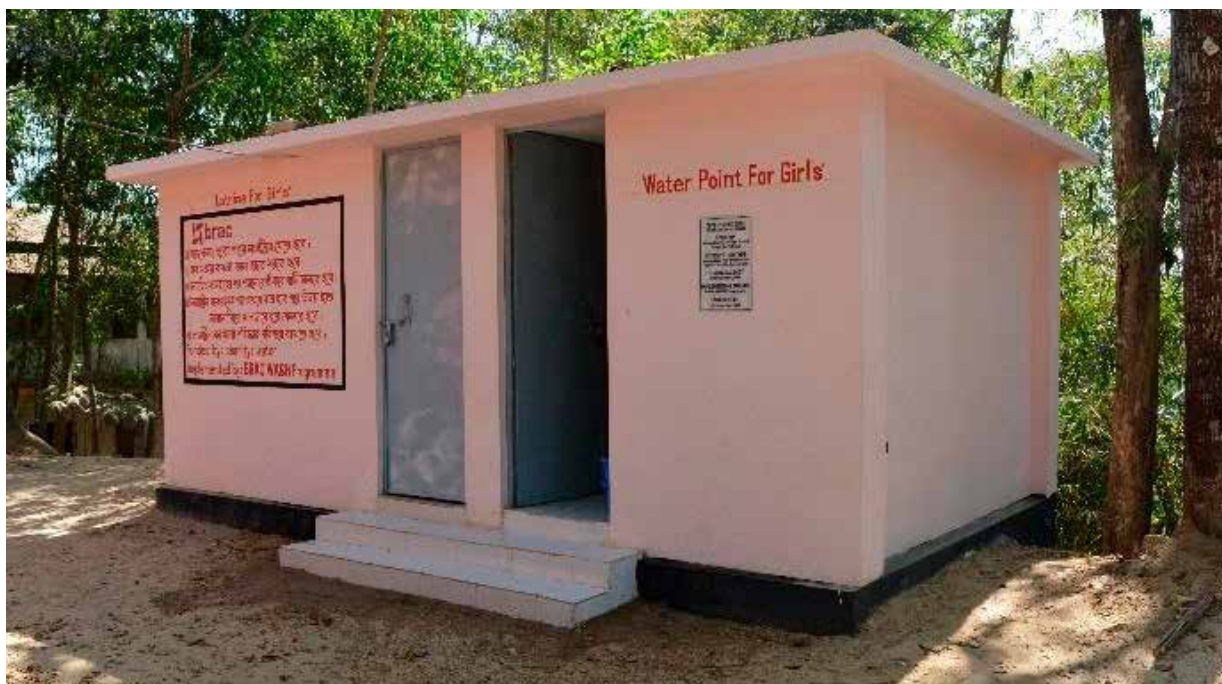
Schools were selected based on a checklist developed by the WASH programme, mainly from the coastal areas where the safe water crisis is acute, due to high salinity, arsenic, and iron. Also, schools having a higher number of students compared to the inadequate WASH facilities received priority.

Forming different committees: School WASH Committees (SWCs) and student brigades (SBs) were formed in every school to run WASH interventions smoothly.

WASH IN SCHOOL APPROACH

WASH in school component is being operated under the four building blocks as follows:





School WASH Committee (SWC): SWC is comprised of 14 members including a female teacher, students, parent representative, an office assistant, and is chaired by the school's headteacher. Some of the major responsibilities of SWC are formation and supervision of student brigade, ensuring funds for operation and maintenance of wash facilities, planning and implementation of WASH activities including follow-up meeting, orientation and capacity building of new teachers, as well as overall management of WASH-related issues.

Student brigade (SB): Each school has a SB consisting of 24 members from grades six to nine. Some of the responsibilities of student brigades are maintenance of WASH facilities along with ensuring the availability of hygiene supplies, regulation of overall cleaning activities in school premises, and motivating and educating their peers on hygiene practice.

Installation of sanitation facilities: The BRAC WASH programme intervened in schools with no improved sanitation facilities or lacking separate facilities for boys and girls and having a higher ratio of users per latrine. The programme has a unique design for latrines (one block with three

stalls) incorporating optimum modern facilities to maintain uniformity across the schools. The construction cost will be financed with a significant contribution from schools in order to raise a sense of ownership and accountability.

Each toilet is equipped with running water, soap, and a dumper (inside and outside). Furthermore, there are separate basins with soap and water outside of the toilets for hand washing. Since 2019, all latrines are designed to be disabled-friendly, with ramps and rails in each latrine block. This endeavor was taken to better support the initiative to ensure inclusiveness achieving the 'leaving no one behind' goal. All-girls' latrine chambers were equipped with menstrual hygiene management facilities such as waste bins with lids, available soap, and water. The mechanism of managing wastes was also established with the schools.

Safe water supply and handwashing stations: BRAC WASH in schools provided context-specific water technologies to ensure safe drinking water for the school community. Schools are still behind in providing adequate safe drinking water to the students due to lack of water testing facilities and improper maintenance

of the sources. Therefore, the WASH programme emphasised water quality testing of the available sources, providing safe drinking water options, and capacitating the school committee to carry out operation and maintenance of the given facilities. The programme installed water technologies in schools such as piped water systems, deep tube wells, iron removal plant (IRP), and arsenic iron removal (AIRP) plants based on the needs of the schools. Since 2018, the programme has mandated water quality testing in all intervened schools. A total of 10 water parameters were tested including pH, temperature, TDS, EC, iron, salinity, fluoride, nitrate, arsenic, and e coli. All schools were provided with separate WASH blocks for boys and girls students. WASH blocks had a basin and tap connected to a safe water source for the students to collect safe drinking water as well as serve as a handwashing station.

Hygiene education and practice: Since the beginning of the project, hygiene sessions have been conducted in schools alongside the provision of WASH facilities. School WASH committees, student brigades, caretakers and teachers were oriented with WASH operation & maintenance of WASH infrastructures and practice of hygienic behaviour through training and workshops. The programme mobilises school committees to conduct at least one hygiene session per week. BRAC WASH provided a hygiene module, flip chart, and other BCC materials used during the sessions. By forming a student brigade and providing necessary training, a mechanism is developed where the school itself can conduct



hygiene education sessions. From 2016 to 2020, around 12,945,794 students have received hygiene education.

Awareness building: BRAC WASH observed WASH-related national and international events such as Global Hand Washing days, National Sanitation months by engaging schools, communities, and other stakeholders to routinely raise awareness on WASH issues. Moreover, large-scale awareness among the school members is raised through one of the innovative approaches: This approach also helps to break the stigma of discussing menstrual hygiene in public.





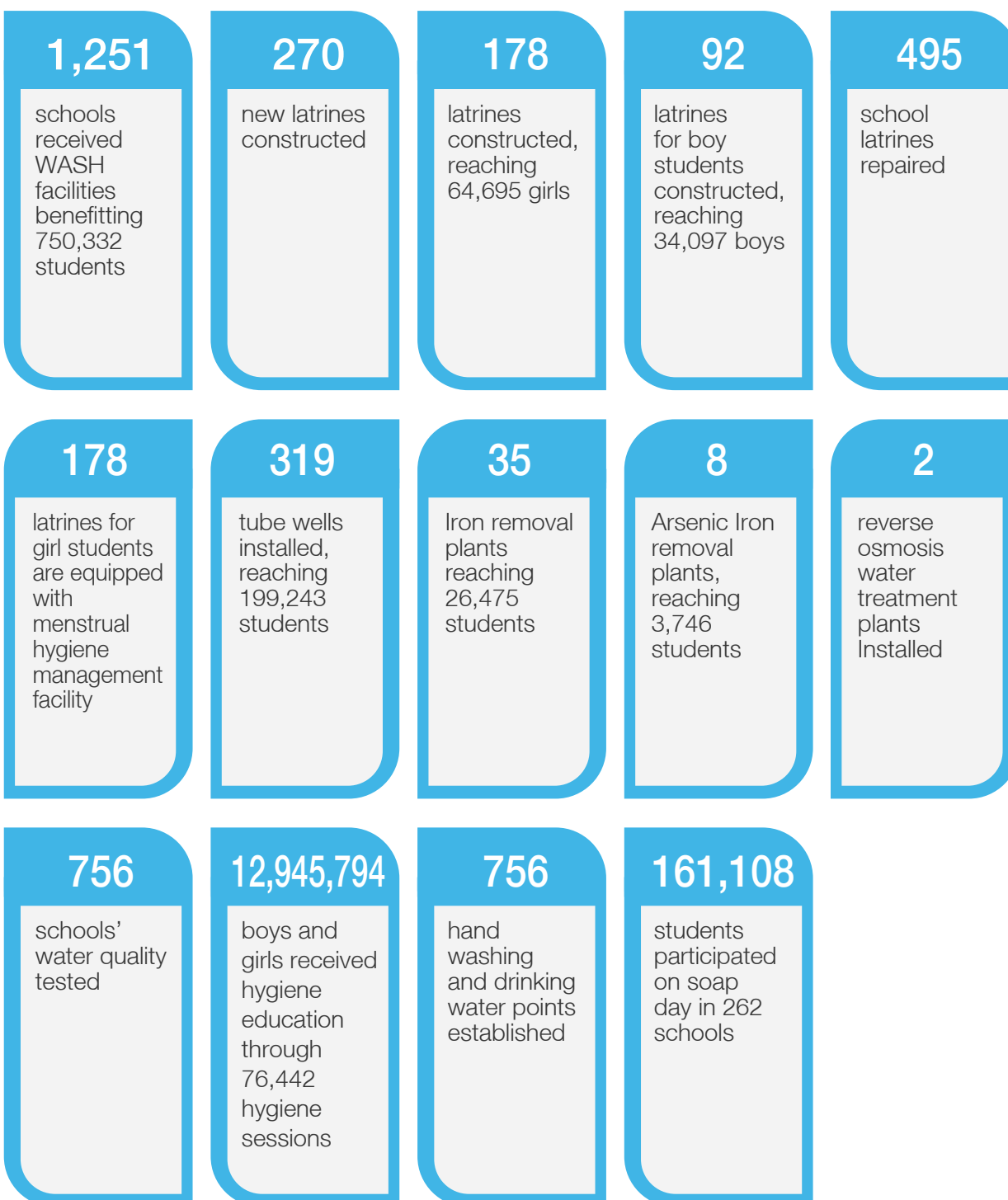
Soap drive : Soap drive is organised annually in all intervention schools at least once, where students are requested to bring a bar of soap and create an inventory of soaps in the school for yearlong use. Local government officials and other community leaders are invited to attend the celebration and exchange their knowledge and reflection on the importance of hygiene behaviour. This particular activity encourages students to adhere to hand washing practices.

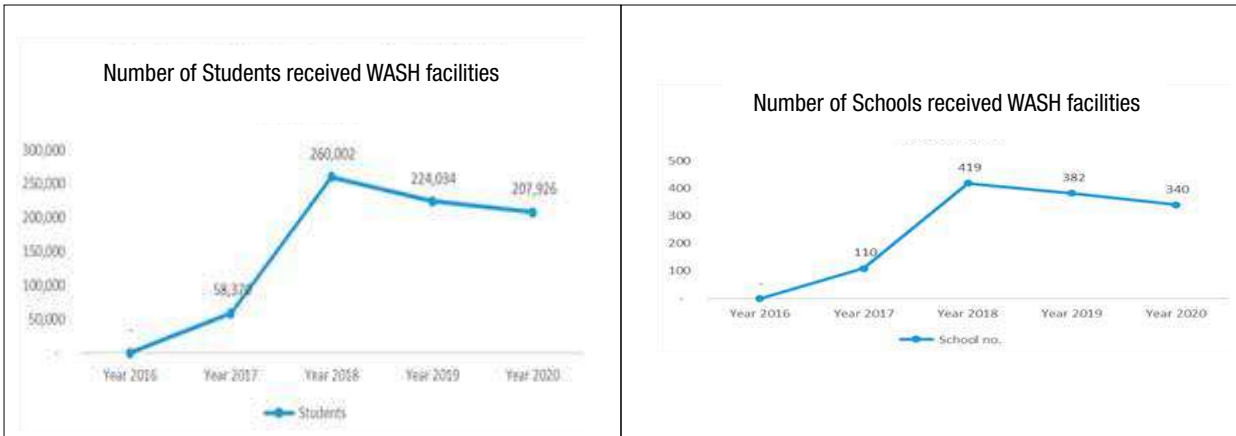
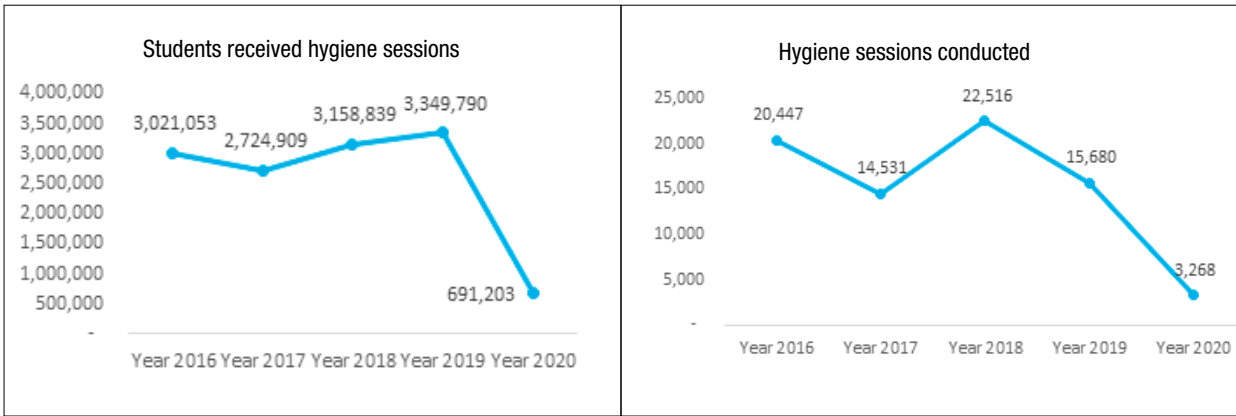
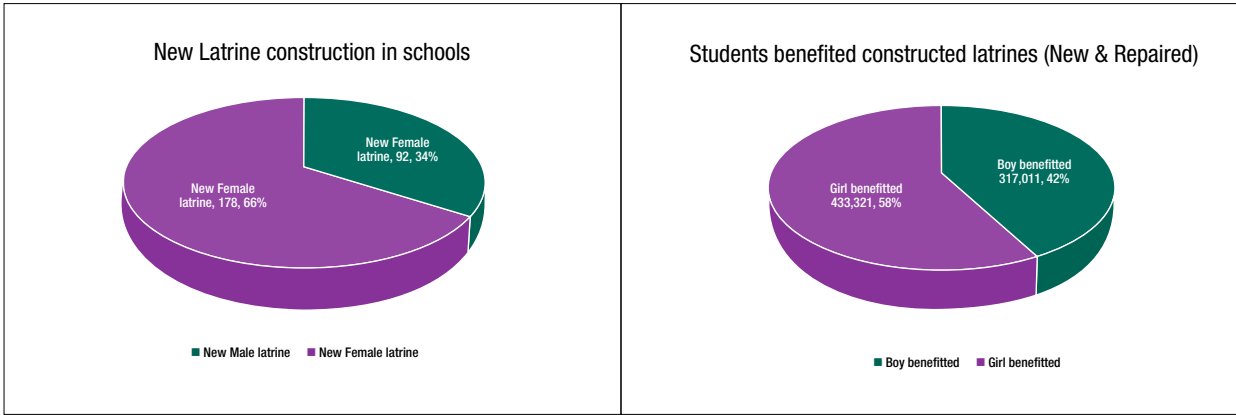
Napkin drive: Napkin drive follows a similar model to soap drive, where all female students are asked to bring a packet of sanitary napkins and deposit at school to maintain an inventory of napkins. This approach also helps to break the stigma of discussing menstrual hygiene publicly. Keeping an inventory in the school ensures that girls have access to napkins at school whenever

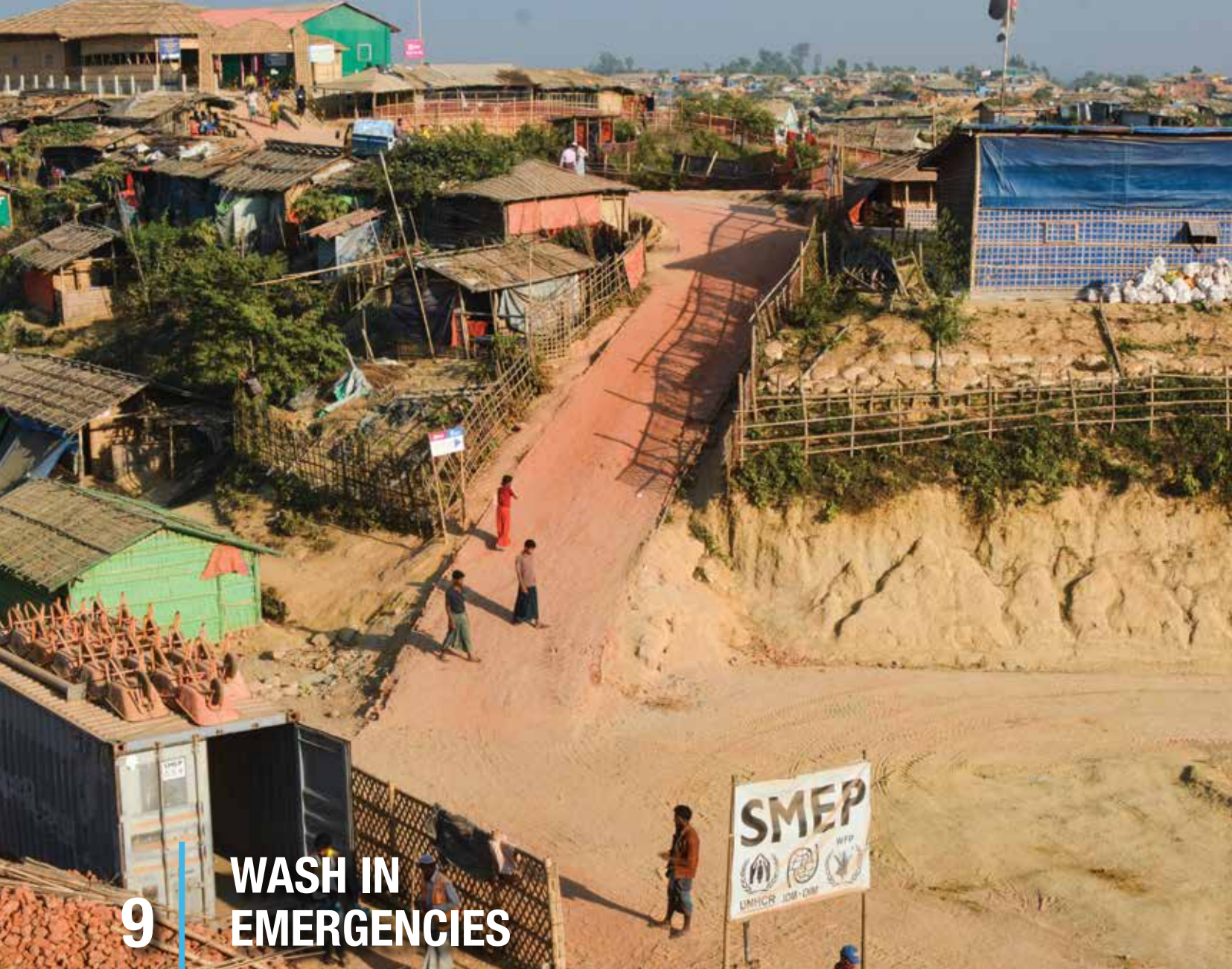
necessary. The programme mobilised female teachers to conduct separate menstrual hygiene sessions with female students.



ACHIEVEMENTS







9

WASH IN EMERGENCIES

The provision of WASH services is usually one of the highest priorities following the onset of any crisis, whether sudden or protracted, following a natural disaster or complex situation. Water, sanitation and hygiene facilities become crucial components to uphold the dignity of the vulnerable population in need, and coupled with appropriate hygiene promotion activities become vital in reducing water-borne disease transmission and protecting the health and well-being of the affected communities.

Over the course of five years, from 2016-2020, BRAC WASH has used its capacity to mobilise resources to respond to multiple emergencies, including the humanitarian crisis following the

influx of the Rohingya population in 2017. This chapter will highlight the programme's response to the Rohingya refugee crisis and during the annual flash flood.

INTEGRATED WASH SERVICES IN HUMANITARIAN CRISIS

WASH in emergencies has become a critical component of BRAC WASH's work and the programme has been providing humanitarian assistance to vulnerable populations in times of disasters and conflicts. As part of the humanitarian work, BRAC WASH has been actively engaged in providing WASH response to the Rohingya refugee crisis.



BACKGROUND TO THE EMERGENCY PHASE

In late 2017, the world witnessed an influx of over 901,350 forcibly displaced Myanmar nationals (FDMN), from Myanmar into Bangladesh. This resulted in a massive struggle on the part of the government of Bangladesh, the local population, and aid workers to secure shelter and life-saving commodities. In the first few weeks, the camps and extended sites established for these refugees had virtually no access to water and sanitation facilities. They were forced to collect water from paddy fields, ditches, and shallow tube wells which were contaminated with human excreta, causing threat to a high incidence of diarrheal diseases. The FDMN and Host communities were highly vulnerable and almost entirely reliant on humanitarian assistance.

Considering the urgency of the situation, the initial focus of WASH interventions by different organisations was on the volume of infrastructure, particularly shallow tube wells and pit latrines with a minimum number of rings. BRAC was one of the primary and largest responders during the earliest days of the crisis, and constructed more than 10,000 latrines within 15 days, and installed numerous shallow tube wells.

However, in the makeshift settlements, there was enormous pressure on the existing and already weak infrastructure. By December 2017, the inter-sector coordination group (ISCG) reported that many facilities were non-functional due to lack of maintenance, desludging, and poor quality of infrastructure, and needed to be decommissioned/ repaired/upgraded. Many shallow tube wells dug during the emergency phase began to dry up due to excessive extraction of surface water. By the end of 2017, organisations began to collaborate and shift towards a longer-term approach that factored in operation and maintenance, quality of construction, and community engagement.

By early 2018, BRAC began decommissioning nonfunctional tube wells and latrines, introduced faecal sludge emptying and transport, and upgraded existing latrines and bathing cubicles. The project focused on improving the WASH facilities and services in both the refugee camps and host communities.

WASH IN ROHINGYA CAMPS AND HOST COMMUNITIES

As part of BRAC's humanitarian programme, the WASH programme conducted several activities to support the larger WASH sector acting in the camps and host communities. The activities included the installation and maintenance of tube wells, latrines, bathing cubicles, establishing water distribution channels, conducting behavioural change communication, hygiene training for the staff, and provision of faecal sludge and solid waste management in the camps.

ACTIVITIES FOR SAFE SANITATION

Construction of household and communal latrines: The programme constructed thousands of twin pit latrines, which was the standard technology decided by the WASH sector in Cox's Bazar. The programme also constructed communal latrines, in parts of the camps that had space constraints. They had four chambers, and were built for 16-20 households and served 800-100 people.

Faecal sludge management in camps: In densely-populated refugee camps, faecal sludge management is an essential component in ensuring that the latrines do not become nonfunctional but also to protect the environment from becoming dangerously contaminated by faecal bacteria. BRAC implemented a system that involved both mechanical and manual desludging of latrines and septic tanks.

BRAC constructed 48 faecal sludge treatment plants with a capacity to manage 13,000 litres of sludge per day. All implemented FSM plants are connected to 65 latrines and collectively benefited 6,549 FDMNs in different camps.

Biogas plant: BRAC set up 10 biogas plants, an alternate solution for faecal sludge management in small communities, each of which are connected to six two-chamber latrines, and can provide natural cooking gas to two burners for 10 households.

Bathing cubicles for the women: Separate bathing cubicles were constructed for women and girls to ensure proper privacy. Single and two-three chamber bathing cubicles were built each, for four to five households.

Solid waste management: BRAC distributed waste bins at the household and community level in the camps. Separate colour-coded bins were provided, where red bins were designated for inorganic waste and blue for organic waste. A dumping station was constructed at each camp where the organic and inorganic wastes were transported and incinerated. Moreover, pits for dumping solid waste at the household level were also promoted.



Repair of latrines in schools and public spaces used for shelter: WASH facilities damaged due to overuse during the influx were repaired by the programme. Two-storied hygienic latrines with hand washing and menstrual hygiene management facilities were constructed.



ACTIVITIES FOR SAFE DRINKING WATER

BRAC established various water technologies in the camps and host communities, factoring in geophysical and mobility contexts. The quality of water from each facility provided was tested from BRAC's own water testing facility.

Installation of Deep tube wells: BRAC installed deep tube wells as its standard water facility, as shallow tube wells posed risks of being unsafe due to faecal contamination. Moreover, shallow tube wells in the camps were drying up due to excessive extraction, especially in the Teknaf region.

Construction of piped water networks:

Piped water networks were one of the large and successful interventions in the camps. Each piped network had several tap stands and each person was allotted 20 litres of water per day. The piped networks have a capacity of delivering 30,000 to 70,000 litres of water per day.

Water trucking in areas with water scarcity:

BRAC adopted water trucking as an emergency response to a camp in Alikhali, Teknaf where no water source existed. Each day, 5,000 litres of water was transported 30 kilometres from Ukhia via truck to deliver water to 300 - 400 households. The programme later constructed two piped water networks to solve the water crisis.

Water quality testing: Testing the quality of water is of paramount importance in emergency settings. BRAC established two water quality testing laboratories. Quality is normally assessed against both microbial indicators (faecal coliform and total coliform) and physicochemical parameters. The water samples are tested for the following parameters- faecal coliform (FC), total coliform (TC), pH, turbidity, iron, chloride, manganese, and arsenic.

HOW HYGIENE WAS PROMOTED

The need for hygiene promotion: When BRAC WASH began to work in the camps, the programme noticed a high need for hygiene and WASH education amongst the population. It was observed that hand washing was practised improperly and there was a clear lack of awareness on the need to wash hands during critical times; for example, handling of child faeces, or before feeding children. The population also lacked knowledge on handling water from sourcing to storing and keeping it safe from contamination. As hygiene is a critical component to ensure sound health, prevent enteric diseases and stunting in children, the programme adopted a range of hygiene promotion approaches, emphasising community participation through targeted hygiene promotion.

The approach also emphasised specific interventions for specific target groups like women, children, community leaders. Hygiene promotion activities were designed with the following principles in mind:

- Hygiene promotion is everybody's responsibility, regardless of age, sex, or religion
- Targeting participatory methodologies/ activities based on the target groups is paramount for the effective uptake of safe practices
- Targeting an appropriate audience is key to address public and protection risks

Hygiene promotion sessions: Hygiene promoters were deployed from the initial days of the influx, to promote hygiene messages through door-to-door visits, awareness meetings, and block-wise outreach sessions, with various groups such as girls, women, boys, and men, as well as in school within the camps and host community.

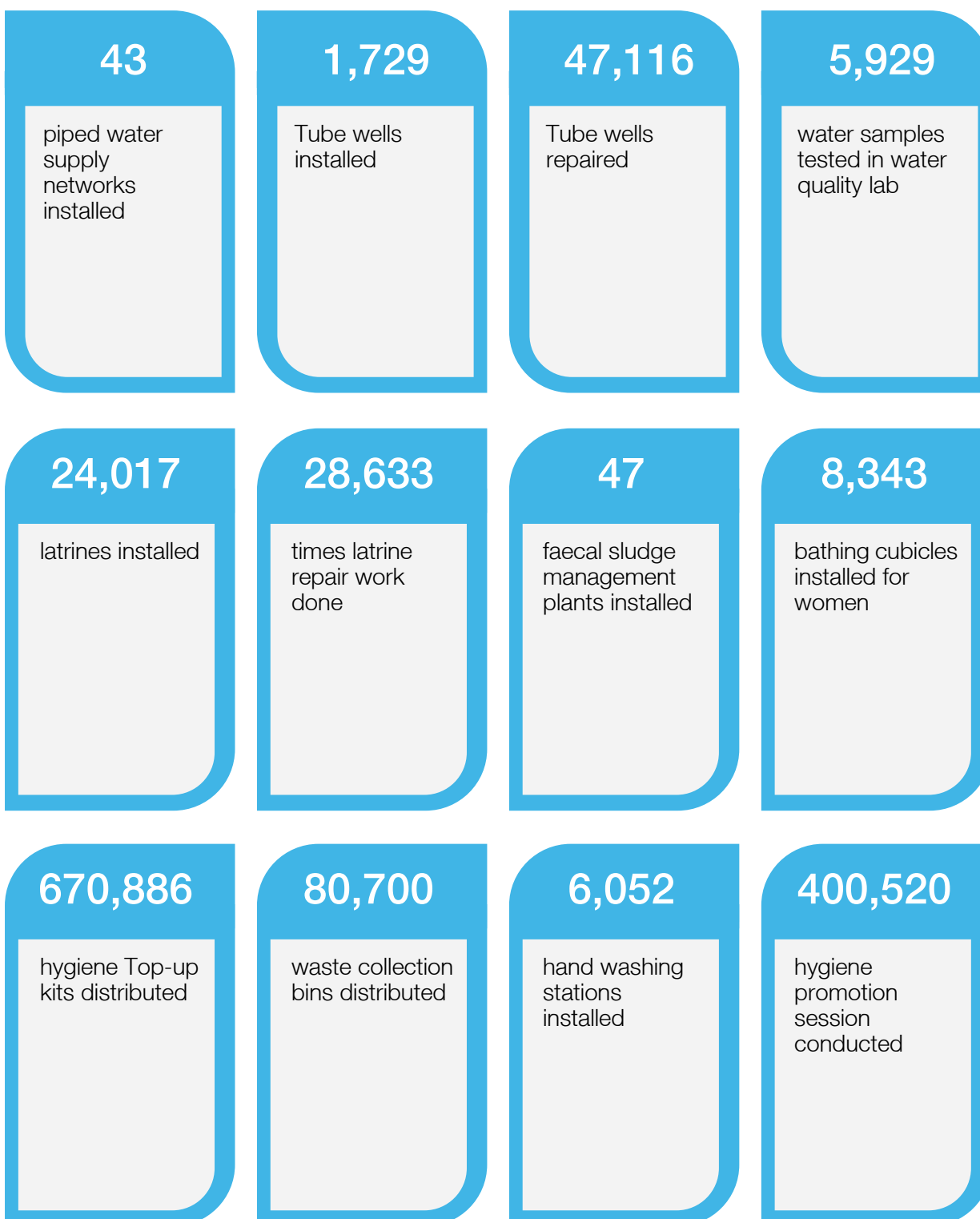
The main issues discussed during the sessions were related to handwashing, water safety, menstrual hygiene management, and solid waste management. Group discussion and community engagement: WASH committees were formed in the camps and host communities. The committees played a significant role in mobilising communities, raising and overlooking the practice of hygiene, as well as site selection of WASH facilities.

Distribution of hygiene kits: BRAC distributed hygiene kits to the households in the camps where it intervened. Volunteers conducted a needs assessment. A hygiene kit consisted of 10 bathing soaps and laundry soaps, a packet of detergent, four toothbrush, toothpaste, nail cutter, five packets of sanitary napkins, 20 L buckets, two pairs of sandals, a toilet brush and toilet cleaning solution, and antiseptic liquid.

Camp clean up campaigns: Several camp cleaning campaigns were organised in the camps to sensitise the community on environmental cleanliness, hygiene practices as well as engaging the community in cleaning practices. The campaigns had been particularly effective in reaching out to a large number of people of all ages and gender.



ACHIEVEMENTS





WASH IN THE AFTERMATH OF FLASH FLOODS

Emergency WASH relief service: A case of the July 2019 flash flood

In July 2019, heavy monsoon rainfall followed by an intense flood left nearly 3 million people delirious in the north of Bangladesh. The Joint Needs Assessment (JNA) identified the nine most severely affected districts to be: Kurigram, Jamalpur, Gaibandha, Sylhet, Sirajganj, Tangail, Sunamganj, Bogra and Bandarban.

In order to meet the immediate needs of the population affected, BRAC mobilised its emergency fund to provide emergency response material which included water supply, temporary sanitation services, and food support.

Due to the lack of access to safe drinking water and appropriate sanitation facilities, there was a high risk of waterborne disease outbreaks, and just all post-disaster activities, providing WASH services became a priority. The programme embarked on a two-month project 'BRAC Emergency Health and Immediate Recovery Project' which operated from August to September 2019. The project was implemented in areas which BRAC identifies to be most affected by the flood. They were Chilmari, Gaibandha Sadar, Chauhali, Dewangonj under Kurigram, Gaibandha, Sirajgonj, and Jamalpur districts respectively.

BRAC WASH supported 206 families by constructing 53 tube wells with well-built platforms and further repaired 89 tube wells which benefitted an additional 314 families. 100 twin-pit latrines with raised platforms were installed which served 218 families hit by the flood and an additional 150 latrines underwent repair by the programme. As ensuring hygiene becomes a critical component following a natural disaster to prevent many water-borne diseases, 800 hygiene kits were distributed within the communities. Each pack of hygiene kit consisted of twin pieces of bathing soap, three pieces of laundry soap, one bucket (20L), a packet of detergent powder, a bottle of antiseptic liquid, a dish wash bar, and 20 packets of oral saline. The project also provided orientation on using these hygiene items to the selected participants.



WASH RESPONSE TO THE SUPER CYCLONE AMPHAN

In May 2020, the super cyclone Amphan hit the coastal area of Bangladesh with an extremely high wind speed, heavy rain, and tidal surges of up to nine feet, which left massive damages on the household and community facilities. BRAC WASH responded by carrying out a need's assessment in seven out of the nine most affected districts. In the aftermath of cyclone Amphan, communities were largely left without safe drinking water, and with a dire situation of sanitation. The programme distributed 67,000 litres of water for over 15,900 people through emergency water trucking to the communities worst affected. Through coordination with local sanitation producers, 15 Department of Public Health Engineering offices, and 84 local governments, the programme also mobilised resources to repair the damaged latrines. Additionally, the programme independently repaired over 1900 latrines and 300 water facilities.

WASH RESPONSE TO COVID-19

To respond to the outbreak of COVID-19, the programme acted as the implementing partner of BRAC's hygiene and behavior change coalition (HBCC) project led by BRAC Social Innovation Lab, which was aimed at instilling handwashing and COVID-19 preventive hygiene behaviour amongst populations in rural and urban areas. Under this project, the programme installed 1000 pedal-operated handwashing stations (HWS) in public areas of 20 sub-districts of Khulna. To ensure the sustainability of the installed facilities, the programme involved local stakeholders (such as bazaar committee members, managing committees of mosques, madrasas, schools, colleges, etc, as well as standing committees of the local government and influential local leaders) and appointed a caretaker from within the community to ensure regular maintenance including refilling of the water tanks, replenishing soapy water, and cleaning of the stations. The programme collected insights from the project's knowledge partners- BITs and BIGD to modify the HWS structures to enhance user-friendliness.



Apart from installing handwashing facilities, the programme distributed hygiene materials (soap and toilet cleaners) and mobilised its field staff to nudge people towards the HWS. Local community people received demonstrations on the use of the HWS so they in turn could teach and motivate others to use the stations. In order to increase awareness on adopting the key hygiene practices to prevent the transmission of COVID-19, hygiene promotion sessions were conducted with various demographic groups in the community, in addition to in-person demonstrations of handwashing practices. The programme also involved WASH entrepreneurs within the implementation areas to spread awareness-raising messages to their customers.



10

MAXIMISING IMPACT: INTEGRATION OF WASH SERVICES TO OTHER BRAC PROGRAMMES

After working for 10 years in 250 sub-districts and achieving success, especially in terms of improving rural sanitation, the programme introduced the project 'Integration of WASH services to other BRAC programmes', so that messages could continue to be reinforced even after the programme phases out. The main approach of the project is to integrate WASH services into four core BRAC programmes according to their expertise and utilise the duration to build the capacity of the respective programme staff to effectively deliver WASH services.

EXPANDING WASH LOAN SUPPORT THROUGH BRAC MICROFINANCE (MF) PROGRAMME

In collaboration with BRAC Microfinance, WASH loan products have been introduced in 120 branches. This partnership helped to expand WASH loan services in areas where the programme did not offer loans. Loans allow households living in poverty to afford the construction of latrines and water points without investing a large sum of finance at once. Village WASH committee (VWC) members and/

or staff of the UPGP, BEP, or HNPP programmes connect the possible loan seekers to the BRAC Microfinance programme so that they can get the loan and construct/repair/reconstruct their sanitation facilities. Microfinance also provides loans to WASH entrepreneurs, such as owners of sanitation centres, to strengthen the supply side as well.

HYGIENE PROMOTION IN THE COMMUNITIES USING HEALTH, NUTRITION AND POPULATION PROGRAMME (HNPP)

HNPP has various engagement and empowerment platforms namely health education forums, maternal, neonatal and child health (MNCH) committees, spouse forums, expectant mothers' forums, and women support groups. Behaviour changes and hygiene is an integral element discussed in these platforms. The programme collaborated with HNPP to train its officers and frontline health workers to deliver hygiene-related messages including menstrual hygiene management, motivate communities to construct or upgrade latrines of improved quality and durability. A part of awareness-raising is to inform community members about context-specific WASH technologies such as double pit latrines and faecal sludge management, as well as connect them to BRAC microfinance for WASH loans. The programme in collaboration with HNPP also produced an animated video for instilling hygiene practices among young children that will be broadcasted using mass media.



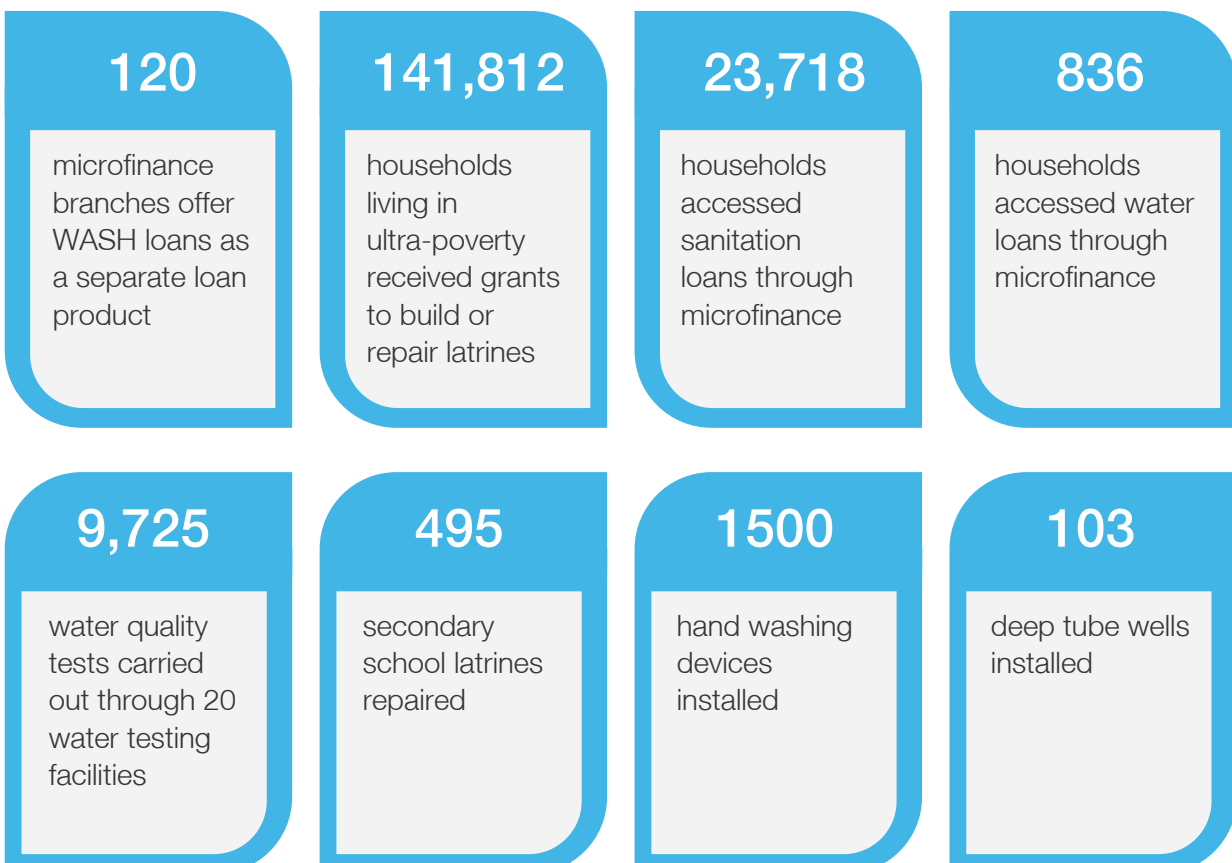
ULTRA-POOR GRADUATION PROGRAMME

It is very difficult for the ones living in extreme poverty to be brought under the coverage of WASH service delivery unless they receive grants of support to repair/ rebuild their latrines. The UPG programme staff help to identify households living in extreme poverty in need of hygienic and safely-managed latrines. They also deliver WASH messages through their various community platforms. These households have received free water facilities as part of this initiative.

HYGIENE EDUCATION AT SCHOOLS THROUGH BRAC EDUCATION PROGRAMME (BEP)

Through collaboration, BEP delivers messages to students to create awareness on good hygiene practices. The programme trained the teachers and other staff of BEP on delivering critical messages on hygiene, safe drinking water, water sources, water collection and storing practices, the importance of hygienic sanitation and the various technologies which ensure safe sanitation in the community. Moreover, messages on environmental hygiene were factored in. WASH messages are disseminated to students through the curriculum and other activities, and to parents through parents' meetings of which WASH became a mandatory element. Menstrual hygiene messages are delivered through Adolescent Development Programme (ADP), a component within BEP that is especially focused on engaging adolescents.

ACHIEVEMENTS





11 CLIMATE CHANGE AND WASH

Water is predicted to be the main channel through which climate change impacts will be felt by people, ecosystems, and economies and freshwater sources are highly vulnerable. The way climate change affects at the local level is through rainfall, runoff, groundwater recharge rate, and extreme weather events. Bangladesh is one of the most vulnerable countries in the world to the impacts of climate change and potentially will be one of the most adversely-affected countries. The impact of climate change in Bangladesh is diverse and affects several complex mechanisms. Increases in temperature, humidity, erratic rainfall, sea-level rise, and unpredictable extreme events such as flooding, cyclones, droughts, surges, and

storms, etc. could impact the water supply and sanitation sector by creating water stress, water quality deterioration, salinity intrusion, and damaging water supply and sanitation infrastructure.

BRAC WASH has been operating in 400 hard-to-reach unions and 38 peri-urban sub-districts of which the majority of the selected areas are vulnerable to the effects of climate change. The challenges most commonly addressed by the programme are frequent flooding which damages latrines and contaminated tube wells, salinity intrusion in groundwater and surface water sources which leave communities with extremely limited options for safe drinking

water. In few of the areas of operation, the programme also faced drought and a lowering of water levels during the dry season.

Since 2016, the programme has increased its focus on promoting climate-resilient WASH development, so that communities can install facilities that can withstand the adverse effects attributed to climate change, and also so that communities feel less impacted financially, health-wise and psychologically from extreme weather events such as flooding, cyclones, etc. The programme staff educates community members in climate-vulnerable areas to install appropriate technologies and motivates them to invest sufficiently in such facilities as they yield a much higher return on investments. The most commonly promoted technologies in rural and urban hard-to-reach areas are rainwater harvesting systems, elevated double pit offset latrines, and elevated tube wells with platforms and drainage outlets. Moreover, BRAC WASH also develops water entrepreneurs and vendors to sell safe drinking water treated through reverse osmosis plants in areas severely affected by



Water vendor selling safe drinking water

salinity intrusion, particularly in the southern belt of the country.

In recent years, BRAC WASH has also played a significant role in recovery efforts for communities severely affected by extreme weather events. The programme utilised its expertise, collaborated with other programmes of BRAC, and leveraged its rich network of field workers to provide emergency WASH relief services to flood and cyclone-affected areas.



Elevated tubewell platform



12 MONITORING SYSTEM

One of the important elements for the success of the BRAC WASH Programme is its holistic monitoring system. Monitoring findings are given the highest importance and different activities of the programme are planned or necessary adaptations are made accordingly. Inputs and outputs are measured through the Management Information System (MIS). Information from the field on inputs and outputs are fed into the customised software at the sub-district level and are consolidated at the head office. Collected information is generally sex-disaggregated.

An independent quality control unit (within the programme) consists of trained quality controllers ensures transparency of the data collected from the field.

The quality controllers ensure WASH facilities that are supposed to be installed with loan or grant support by BRAC are installed on due time maintaining the standard guideline and procedure and are in use by the beneficiaries (household members of loan or grant receivers) and that financial transparency is maintained. Similar methods are used for monitoring the support for WASH entrepreneurs. If any discrepancy is found between the MIS data and

field reality, it is brought to the local management for necessary action.

Continuous follow-up is done if any structure is not properly installed on time. In addition to that BRAC Monitoring Department (BMD) validates MIIS data provided to the donors or BRAC Management bi-annually. They check data validity and accuracy, with which they rank MIS data across the programme. Financial transactions

are also monitored yearly by the BRAC Audit Department.

From its inception, monitoring was considered one of the fundamental elements of the programme and as such played a very crucial role in the continuous improvement. With the significant results from the monitoring, new additions and adaptations were made.



13

WAY FORWARD



During its operation from 2016 - 2020, the programme identified the gaps and challenges in achieving safely-managed water and sanitation as well as the factors that are important to achieve SDG 6 targets by 2030. Moving forward, the programme has identified the following priority areas to incorporate into its strategic framework for its future interventions:

Leave no one behind: The commitment to 'leave no one behind' under the SDGs, adopted in 2015, needs to be translated into a much-needed commitment to universality and equality. The aim, therefore, is to address the persistent inequalities in access to services that affect people's lives. Women, girls, and

people living with disabilities are affected disproportionately by improper access. BRAC's own experience has shown that groups that are living in poverty and vulnerable, need to be prioritised specifically, including the targeting of resources to those most in need, for them to get on and subsequently move up the WASH ladders.

Embracing the SDG targets and definitions: It must be recognised though that the SDGs safely-managed water and sanitation services may be out of reach for a large proportion of the population for some time as for many the right to even a basic level of access remains unmet. In the future, the programme will find the right



balance between realising universal access to at least minimum basic WASH service levels and at the same time finding innovative solutions to allow for future incremental changes and moving towards safely-managed services over time. The balance between interventions focusing on a basic level of service and on moving people up the ladder towards safely-managed services will be informed by the specific local contexts.

Integration of different kinds of waste management models: The development of effective, efficient, and viable waste management models or systems requires first identification and quantification of urban waste sources and compositions, and the assessment of different waste management options and systems. It is not enough to focus only on improving faecal waste services. Urban centres will become more livable when the collection, transportation, treatment, and safe disposal of all the different waste streams are improved.

More engagement with (local) government bodies: To support system strengthening and capacity-building efforts so that projects and initiatives of the WASH sector can be led properly within their jurisdictions. The lack of capacity and inadequate levels of financial resources at local government levels is hampering the realisation of SDG 6 by 2030. Instead of delivering services

directly to the people, development partners should support LGIs to create a conducive enabling environment and build their capacity to deliver equitable and sustainable WASH services.

Through interacting more actively with prioritising national-level sector initiatives and focusing on advocacy, a strong accountability framework can be constructed including sector monitoring and learning. The range of challenges at the national level – unclear and overlapping mandates, incomplete regulatory framework, lack of monitoring and coordination mechanisms, inadequate resources, and so on – are so vast that BRAC will have to make some strategic choices and focus on challenges that are most relevant to its undertakings. Advocating for the devolution of mandates (combined with a transfer of adequate resources) to lower levels of government institutions (eg, municipality and sub-districts) would be in alignment with BRAC's proposed new (more 'hands off') way of working. Promoting equity and helping the government to become more responsive to the needs of those living in poverty and marginalisation is another area where BRAC will take the lead.

More focus into innovation: As a prerequisite for achieving noticeable results. BRAC has been instrumental in introducing new innovative WASH technologies and service delivery approaches since 2006. The programmes however have now reached a stage where substantial increases in coverage are not realised anymore. As past programmes have shown, innovation does not just happen; it must be encouraged and nurtured. Innovation is not just about technology; it also includes new service delivery models and management practices. New smart approaches need to be developed to reach the 'last mile' and to minimise slippage. Similarly, appropriate technologies need to be introduced to address the entire sanitation service chain but also to ensure that people living in difficult or more challenging geographic areas have access to sustainable WASH services, or to address the impact of climate change. Innovation will also require working more extensively with (new) partners and collaborating with those that have the national

and global reach and expertise to share, transfer, and adapt learning successfully.

Further integration of WASH interventions in other BRAC programmes: To increase the impact of WASH interventions, the integration project has been successful in getting the different BRAC programmes on board and creating a win-win situation for all BRAC core programmes. Great progress has been made to

integrate WASH service delivery in the regular work processes of Microfinance Programme, Health, Nutrition & Population Programme, BRAC Education Programme, and Ultra-Poor Graduation Programme Opportunities also exist to collaborate more closely with the urban development programme, the climate change programme and disaster management programme, and the gender, justice and diversity programme, and Humanitarian Crisis Management Programme.



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An overview of news, blogs, resources and videos of the BRAC WASH Programme can be found here:

<http://goo.gl/dSIwxO>



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